Understanding the Purchase of Outcome in Substance Abuse Treatment

William E. Ford, Ph.D.
For the
National Council on
Alcoholism and Drug Dependence
Committee on Benefits

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Executive Summary

This document is designed to provide the context in which the National Council on Alcoholism and Drug Dependence Committee on Benefits has been working to develop an outcome-based system for the purchase of substance abuse treatment services. In order to understand why a new approach is needed, it is important to understand the current substance abuse treatment system and the environment in which it operates. This document presents a review of the effect of substance abuse in America, as well as what the societal response to it has been, particularly focusing on treatment. The financing of the treatment system is analyzed. Current outcome measurement activities are described, as are current performance indicators. This is followed by a review of managed care. Finally, this document discusses issues related to the purchase of treatment outcome and its policy implications.

Key policy implications and considerations related to the outcome-based purchasing of substance abuse treatment presented in this document are:

- **Diversity and Cultural Competence.** The majority of current drug users are white, yet the rate of use is highest among blacks. Men have nearly twice the rate of use as women. The rates of heavy drinking are similar among white, blacks, and Hispanics. Men are nearly five times as likely to be heavy drinkers as are women. People living in metropolitan areas are more likely to be drug users. These findings suggest that the outcome data upon which an outcome-based purchasing system is built must be sufficiently comprehensive to reflect unique properties of many demographic groupings. That is, when members of a demographic cohort have differential treatment outcome characteristics, these must be built into the outcome-based purchasing model. Yet, because the number of non-white male substance abusers can be relatively small, the accumulation of reliable and valid outcome data about these other demographic groups may take some time. Initially, then, the outcome-based purchasing system may be best suited for white males from whom a larger pool of reliable and valid outcome data would be more readily available. Purchasers will be buying an outcome-based system for a diverse demographic group. For the system to be successful, it must reflect the unique outcome characteristics of all sub-groups within the covered population. For example, the Medicaid-covered population is primarily female. There would be little point in attempting to sell to a state Medicaid agency a model built on preponderantly male-based outcome data. To do so would risk mismatching available outcome data and the needs of the entire

covered population, a clinically and financially risky situation.

- **Keeping what works currently.** The estimated costs to society of substance abuse are based, in part, on calculations of the costs to collateral systems of dealing with substance abusers. Such collateral systems include general health care, welfare, criminal justice, etc. It is important to remember that no matter how well designed the outcome-based purchasing system might eventually be, substance abusers affect everyone's lives in many different ways. A good purchasing system will not obviate the need for all of the other systems currently in place that help society deal with substance abuse and the substance abuser. Thus, employee assistance, criminal justice, welfare, and medical systems will continue to be needed to help society cope with substance use. To the extent that an outcome-based purchasing system can improve treatment outcomes, some collateral costs may be reduced. Nevertheless, it is important to remember that most substance abusers do not want nor seek treatment. It would be perilous to oversell the potential general societal benefits of an outcome-based purchasing system.

- **The complexity and size of the substance abuse treatment system.** The substance abuse service system treats a little less than a million persons daily in approximately 9600 substance abuse programs. The vast majority of clients on any given day are receiving outpatient services. The services are funded by multiple sources of revenue, including: commercial insurance, Substance Abuse Prevention and Treatment Block Grant (SAPT) funds; Medicaid; Medicare; state general revenue; local tax revenue; donations; and private pay. Most of these revenue sources require programs to follow detailed regulations or requirements as a condition of receiving funds. Further, external-accrediting bodies that regulate, but do not fund, services place additional requirements on providers concerning medical records, staff qualifications, outcome measures, etc. Any proposed outcome-based purchasing system should ensure that the outcome measurement system is consistent with the requirements of every funding/regulating body. The mix of funding sources will vary from program to program. The emerging outcome-based purchasing system requires that measures be taken in order to establish outcome rates. It also requires continuous outcome monitoring in order to refine the system, and to demonstrate to the purchaser the outcome rates achieved. One strategy for implementing a uniform outcome monitoring system would be to enlist the participation of individual programs, program-by-program. While time intensive, this strategy would help to ensure that all regulatory requirements are being met. On the other hand, convincing a major funding source to adopt a uniform outcome monitoring system would have the practical advantage of affecting multiple programs at once. It would not, however, ensure compliance with all of the regulatory requirements that apply to each program funded by the single major funding source. Further, given the sometimes-limited revenue base of many community-based providers, the implementation of an outcome monitoring system may require additional

human and financial resources. Finally, implementation of an outcome monitoring system must meet the needs of each program. For example, some programs might implement it for all admissions and some would want to implement it for only for those revenue streams requiring it. In any case, the implementation process must be sensitive to the unique qualities of each program if the outcome system is to be accepted and used. This too will be a labor-intensive undertaking.

- **Client populations by funding source.** Each of the substance abuse treatment revenue sources tends to pay for services for groups with different characteristics. Commercial insurance tends to pay for services for individuals, who, by virtue of their employment, may have less severe substance abuse disorders. Public funding sources, especially the SAPT and Medicaid, are payers of last resort. They often purchase services on behalf of less socially integrated substance users who frequently have more severe substance disorders. A different outcome "warrantee" should be made to the public purchaser in contrast to the commercial insurance purchaser. Thus, outcome data should be analyzed not only according to demographic characteristics, but also by funding source if the emerging outcome-based purchasing system is to be financially viable.

- **The multiplicity of outcome measuring/monitoring systems.** Substance abuse treatment outcome is one of the most frequently researched topics in the substance abuse literature. The majority of these studies are based on a project-by-project effort by individual researchers. Most are not related to ongoing outcome monitoring systems. Many of the federally funded outcome studies rely on a one-time measurement effort. In addition, they are usually large studies affecting many providers nationwide. It is unlikely that the National Institute on Alcohol Abuse and Alcoholism, the National Institute on Drug Abuse, and the Center for Substance Abuse Treatment will stop their efforts to better understand the outcomes of substance abuse treatment. Further the major managed behavioral health organizations have implemented some form of outcome monitoring to provide their customers with information about the value of substance abuse and mental health treatment. In fact, MCC Companies has already implemented a form of outcome-based treatment purchasing. Any effort to introduce a new outcome-based purchasing system must appreciate the plethora of outcome measurement systems in use. In fact, a new system may have to rely on already existing sources of information rather than introducing what will seem to many providers as a duplicative effort. This is less than ideal because each study or system uses measures that vary, sometimes in significant ways, from each other, and from what might be desirable in the new system. It can also introduce error into the outcome measurement effort. Many of the monitoring systems and studies measure a wide variety of outcome, including:

    - Use of medical services;
    - Crime;

- Return to employment and unemployment costs;
- Welfare costs;
- Absenteeism;
- Substance use; and
- Family disruption.

In order to minimize the burden of a new outcome-based purchasing system, all of these measures must be incorporated. Agencies that struggle with inadequate resources cannot, and should not, be expected to use new measures in addition to those they already are. Outcome measures should also be:

- Aimed at specific objectives and be results oriented;
- Meaningful and understandable;
- Supported by data;
- Feasible and achievable;
- Rely on currently available data;
- Sensitive to the populations being served;
- Supported or accepted by providers;
- Relevant to consumers;
- Value based. Reliable and valid;
- Cost-and burden-conscious; and
- Current.

Finally, because substance abuse services, particularly in the public health system, are often provided to one client through a continuum of settings in various facilities, the outcome system should be sophisticated enough to measure the outcome of an episode of care. That is, for example, when a client is detoxified in a hospital, then receives residential services in a community-based setting, and receives services at an outpatient clinic, measuring outcome only at the one of the sites may give that site an unfair advantage or "boost" from the other treatment received by that patient. Given today's state-of-the-art, this may be a very tall order.

- **Outcome measures are only one measure of the quality of treatment system output.** To some, a system designed to purchase outcome might ignore many other characteristics of substance abuse treatment services that are valued. The various performance measurement systems presented in this document take a broad view of all of the characteristics that are considered important by experts measuring the output of the substance abuse treatment system. In the design of a system to purchase outcome, it is important that many other performance indicators be incorporated. In other words, outcome measures may be most important (at least in a system that purchases outcome), but many other performance measures should also be considered. It would be a dubious proposition to have outstanding outcome in a program that has no medical records, is discriminatory, has a two year waiting list, and is located in a non-licensed facility. An outcomes-based purchasing system

should contain a comprehensive set of provider or system performance measures, including outcome measures.

- **Managed care has a track record.** Any new system of purchasing services should not ignore the valuable contributions of managed care systems in improving the quality of, access to, and affordability of health care. The proposed outcome-based purchasing system should include managed care-like arrangements such as:

  - Contracting for network services that take into account concerns for provider capacity; composition and structure of the network; selection and credentialing of providers; provider types; provider payment requirements and systems; provider grievance and appeal guidelines; and provisions for the monitoring of provider services.

  - Requirements for information management, including the management of eligibility information; staff credentialing information; utilization and case management functions; claims generation; clinical and management reporting; quality assurance reports; incident reporting; and confidentiality, security, and back-up requirements.

  - Requirements for quality management, including process, structural and outcome measures; accreditation requirements; and internal quality management systems.

  - Requirements for participating in utilization review/case management; level of care criteria; best practice guidelines; and fee schedules. Note that best practice guidelines can be derived from the very outcome data collected for the outcome-based purchasing system and compiled in a data repository.

  All of these managed care techniques can assist the outcome-based purchasing system to contain costs, ensure quality, and improve access.

- **Provider agencies must become learning organizations.** The creation of a system to purchase outcome will be hollow if providers cannot create, acquire, and transfer knowledge from the system to modify their behavior to reflect new knowledge and insights. That is, purchasing outcome should not be an end in itself; it should be a process to improve treatment services over time. Clinicians and staff must find outcome monitoring to be of value or they will simply see it as externally imposed and having little value other than complying with the requirements of external agencies. The collection of outcome data should be added into the clinical workflow, rather than onto it. Data must be collected as a by-product of service delivery and the information gathered must be fed back into clinical processes in real time. One way to accomplish this is to collect outcome data through the assessment process.

The system must feed outcome data into the assessment process while also preparing the data for outcome measurement. Clinical impact requires that outcome data drive two feed back loops. The assessment loop generates information from the data to support treatment decisions on behalf of a particular patient, whereas the outcome loop generates knowledge on behalf of populations. The assessment loop informs the care delivery process (treatment planning, interventions, and patient education). The outcome loop informs and enables the care management process (outcome management, credentialing, continuous quality improvement, and treatment algorithms). By feeding into this double loop system, the data gathered provide information to support decisions on behalf of individual patients and of populations. To build an organization that learns from outcome data requires a cultural shift that must begin at the highest levels of management. Structural changes must reflect management's belief in the importance of organizational learning.

- **The need for a good substance abuse service taxonomy.** In order to measure the outcome of a service, it is necessary to define the service so that it can be identified reliably and validly. Not only is this fundamental to good outcome measurement, it is essential for accounting, and management purposes. There does not appear to be a universally accepted taxonomy of services that meet the demands for reliability and validity in the substance abuse field. Before any progress can be made in making more uniform the reporting of service information, this taxonomy must be established.

- **Providers must have an incentive to be involved in outcome-based purchasing.** Providers in the substance abuse treatment system are going through major changes due in large part to the influence of managed care. Revenues are down and the rate of increase for behavioral health benefits lags behind that of other sectors of health care. Providers are uncertain about their financial futures, and some have unused capacity in their programs. Many providers complain of increased accountability demands while their income drops. If providers are to become involved in, let alone enthusiastic about, the purchase of outcome, there must be something in it for them. They must have incentive to participate in a system that may increase their workload while concomitantly threatening to reduce further their revenue if they do not obtain an acceptable level of outcome, however it is defined. If only the wealthiest of providers can participate in the proposed outcome initiative, the purchase of outcome may benefit only those recipients who least need it. If a community-based program cannot participate for lack of adequate financial resources, the most needy of clients may be disenfranchised from the benefits of the outcome-based purchasing system. Providers must be convinced that there is benefit to this system and that it will directly accrue to them and their clients. Demonstrating this may be the ultimate obstacle to implementing the new system.

The goal of this document is to provide the reader with sufficient information to gain an understanding of the complexity of the substance abuse treatment system, not only from a size and structural point of view, but also from a financing perspective. The complexities of the system must be understood in order to appreciate the challenges and opportunities for an outcome-based system of purchasing substance abuse services.

UNDERSTANDING THE PURCHASE OF OUTCOME IN SUBSTANCE ABUSE TREATMENT

William E. Ford, Ph.D.

I. INTRODUCTION

This document is designed to provide the context in which the National Council on Alcoholism and Drug Dependence Committee on Benefits has been working to develop a new approach to the purchase of substance abuse treatment services. In order to understand why a new approach is needed, it is important to understand the current substance abuse treatment system and the environment in which it operates. This work is designed to be an up-to-date description of the substance abuse treatment system. It may be the most complete review available today of the size of the substance abuse problem, the dimensions of the treatment system, the methods of financing it, and the impact of managed care on treatment. This document will present a review of the impact of substance abuse in America, as well as what the societal response to it has been, particularly focusing on treatment. The funding of the treatment system will be discussed. Current outcome measurement activities will be reviewed, as well as current performance indicator systems. This will be followed by a review of managed care. Finally, this document will discuss issues related to the purchase of treatment outcome and its policy implications. The goal of this document is to provide the reader with sufficient information to gain an understanding of the complexity of the system, not only from a size and structural point of view, but also from a financing perspective. The complexities of the system must be understood to adequately understand the challenges and opportunities for the outcome-based purchasing of substance abuse services.

II. EPIDEMIOLOGIC DATA

This section will describe the size of the country's substance abuse problem, which has been and remains a major public health issue in the United States. It is a problem that affects all population subgroups, making no state, community, or family immune from its effects. Illicit drugs will be discussed first, followed by a discussion of alcohol and tobacco use which are, by far, the largest problems, both with regard to the number of people affected, and the costs to society.

A. Drugs

In 1996, according to the National Household Survey on Drug Abuse (NHSDA), sponsored by the Federal Substance Abuse and Mental Health Services Administration, an estimated 13.0 million Americans were current illicit drug users. This meant that they had used an illicit drug within the month prior to the administration of the NHSDA.

In 1995, there were an estimated 2.4 million people who started using marijuana and an estimated 141,000 people who were initiated into the use of heroin in 1995. Most new heroin users were under the age of 26 and were smoking, snorting, or sniffing it. The overall number of cocaine users was estimated at 1.75 million. Further, young Americans perceive the use of marijuana and cocaine as less risky than their same-aged peers in previous surveys.

A heavy drug-using group first identified in the late 1970's continues to use illicit drugs, and their continued heavy use has resulted in an overall shift in the age distribution of the population of illicit drug users. For example, 19 percent of cocaine-related visits to hospital emergency rooms were of persons 35 years or older in 1985; by 1995 this had increased to 42 percent.

With regard to race, the rate of current illicit drug use was slightly higher for blacks (7.5 percent) than for whites (6.1 percent) or Hispanics (5.2 percent). These differences

disappear for the youth in these three categories. However, most current illicit drug users were white (74 percent of all users), while 14 percent were black and 8 percent were Hispanic. Men (8.1 percent) had a higher rate of current illicit drug use than women (4.2 percent) did. Rates of use were higher in metropolitan than non-metropolitan areas. Those who had not completed high school had a higher rate of use than those with a college education. Unemployment was also related to increased frequency of drug use.

B. Tobacco

Sixty two million Americans (29 percent of the population), including 4.1 million adolescents age 12 to 17 used tobacco. In 1995, about 1.7 million Americans started smoking daily. An estimated 18 percent of youth between 12 and 17 were current smokers during the administration of the NHSDA.

C. Alcohol

Alcohol is, by far, the drug of choice of Americans. In 1996, 109 million Americans age 12 and older had used alcohol in the past month. This is about 51 percent of the population. About 32 million people were binge drinkers, defined as having 5 or more drinks on at least one occasion in the past month. About 11 million were heavy drinkers, that is, drinking five or more drinks per occasion on 5 or more days in the past 30 days. About 9 million Americans age 12-20 were current drinkers, of which 4.4 million were binge drinkers, and 1.9 were heavy drinkers.

In 1996, the level of alcohol use was strongly associated with illicit drug use. Of the 11.2 million heavy drinkers, 31 percent were current illicit drug users. Among binge drinkers, 16 percent or 3.3 million people were current illicit drug users. Other drinkers had a rate of 5.3 percent for illicit drug use, while only 1.9 percent (2.0 million) of nondrinkers were illicit drug users.

White Americans had the highest rate of current use of alcohol (54 percent). The rate for blacks was 43 percent, and that for Hispanics was 42 percent. Whites were more frequently binge drinkers when compared with either blacks or Hispanics, but the rate for heavy drinking was relatively the same for all groups (5.5 percent for whites; 6.2 percent for Hispanics; and 5.3 percent for blacks).

Men were more likely to be binge drinkers (22.8 percent) than women (8.7 percent); men also were also far more likely to be heavy drinkers (9.3 percent) than women (1.9 percent).

Those living in both large and small metropolitan areas are more likely to use alcohol than those living in non-metropolitan areas are. Population density had little impact on binge and heavy alcohol use, however.

The higher the educational attainment of a person, the more likely was the current use of alcohol. Sixty-six percent of adults with college degrees were current drinkers compared with only 39 percent of those having less than a high school education. However, the opposite is seen when considering heavy alcohol use: 3.7 percent of college graduates were heavy drinkers, while 6.8 percent of those who had not completed high school were heavy users.

While the perceived danger of having five or more drinks once or twice a week decreased between 1992 and 1996, young Americans reported perceiving greater risk in having four or five drinks nearly every day.

D. Costs to Society

While researchers differ about the appropriate methodology for calculating the cost of substance use to society, the sheer size of the currently available estimates surely make the point that the cost is enormous.

Individuals, families, communities, and the country as a whole pay for the consequences of substance use/abuse. Those with the disease pay a heavy price, but other segments of the society also pay in sometimes hidden ways.

For example, communities pay the price of substance abuse in unanticipated ways. Baldwin et al. (1993) determined that the frequency of adult surgical and medical intensive care admissions related to substance abuse at large community, trauma, and tertiary referral hospitals. Out of 435 intensive care unit (ICU) admissions, 14 percent were tobacco related, generating 16 percent of ICU costs; 9 percent were alcohol related, generating 13 percent of ICU costs. Five percent were illicit drug related, generating 10 percent of costs. In all, the 28 percent of ICU admissions that were substance abuse-related generated 39 percent of costs. In addition, substance abuse-related admissions were significantly longer and more costly than admissions not related to substance abuse (4.2 days as compared to 2.8 days). The authors note "Frequency of substance abuse-related admissions was linked with the patient's insurance status (Medicare, private insurance, uninsured). In the uninsured group, 44 percent of admissions were substance related . . . significantly higher than in the private insurance and Medicare groups, and generating 61 percent of all ICU costs in the uninsured group."

While not mentioned in the study, it is likely that these uninsured costs are shifted to commercial insurance or the publicly funded entitlements. These are "hidden costs" that all taxpayers and employers eventually help underwrite.

Chasnoff (1991) notes that three population-based studies in various parts of the country found that at the time of first prenatal visit or at the time of delivery, between 2.5 percent and 3.4 percent of mothers tested positive for cocaine or its metabolites. The author notes that previous studies related to intrauterine drug exposure have found that tobacco and alcohol increase neonatal care costs ranging from around $385 million to $3 billion annually.

Other hidden costs are related to automobile accidents. Miller and Blincoe (1994) estimated the incidence of crashes in which a driver or non-occupant had been drinking. They reported that in 1990, 22 percent of motor crash victims (1.2 million people) were injured in alcohol-related crashes. Over 22,000 of these victims were killed. They estimated that the cost of such crashes was $148 billion in 1990, of which $46 billion was in monetary costs, and $102 billion in lost quality of life. This represents $1.09 per drink of alcohol consumed. Excluding drunk drivers and drunken occupants, alcohol-involved crashes caused 8,500 deaths and left 21,000 people permanently disabled and another 605,000 less seriously injured. This averages $0.63 in crash costs every time someone takes a drink.

Fox et al. (1995) identified more than 60 medical conditions involving 110 diagnoses that can be attributable to substance abuse. Factoring these substance abuse-related conditions into hospital costs, 1 out of 5 Medicaid hospital days, or 4 million days, were spent on substance abuse-related care. The authors estimated that in 1994, $8 billion in Medicaid expenditures were related to substance abuse. Similarly, Horgan (1993) estimated that every American pays nearly $1000 annually to cover the costs of unnecessary health care, extra law enforcement, auto accidents, crime, and lost productively resulting from substance abuse.

Finally, the United States Department of Health and Human Services (DHHS) estimated that in 1993, the annual cost to society of alcohol, and other drugs was nearly $246 billion. It noted that alcohol and drug use are related to violence, injury, child and spousal abuse, HIV and AIDS and other sexually transmitted diseases, teenage pregnancy, school failure, car crashes, escalating health care costs, low work productivity, and homelessness. This DHHS study also concluded that over half of the economic impact of alcohol and drug abuse is passed along to persons who do not abuse alcohol or drugs, including institutions, employers, and families. Fifty-five percent of the costs of alcohol and other drug abuse are borne by society, either by governments, private insurance companies, or victims. Abusers bear less than half of the impact of substance

abuse and "arguably the loss by abusers may be lower than this because the financial burden is often shifted to other members of their households".[i]

The distribution of the costs to society due to alcohol and to drug abuse differs significantly. Two-thirds of the costs of alcohol abuse relate to lost productivity, either due to alcohol-related illness (45.7 percent) or premature death (21.2 percent). Most of the remaining costs of alcohol abuse were in the form of health care expenditures to treat alcohol-use disorders and the medical consequences of alcohol consumption (12.7 percent), property and administrative costs of alcohol-related motor vehicle crashes (9.2 percent), and various additional costs of alcohol-related crime (8.6 percent). For drug abuse, more than one-half of the estimated costs were associated with drug-related crime. These costs included lost productivity of victims and incarcerated perpetrators of drug-related crimes careers (19.7 per cent); and other costs of drug-related crime, including Federal drug traffic control, property damage, and police, legal, and correctional services (18.4 percent). Most of the remaining costs of drug abuse resulted from premature death (14.9 percent), lost productivity due to drug-related illness (14.5 percent), and health care expenditures (10.2 percent).

About 45 percent of the costs of alcohol abuse is borne by those who abuse alcohol and members of their households; 39 percent by Federal, State, and local governments; 10 percent by private insurance; and 6 percent by victims of abusers. For drug abuse, 44 percent of the cost burden is carried by those who abuse drugs and members of their households, 46 percent by governments, 3 percent by private insurance, and 7 percent by victims of drug abusers.

III. THE TREATMENT SYSTEM

Substance abuse is a large problem for the United States. Various agencies of government have proposed and implemented several strategies to address substance abuse. One strategy is to stop the influx and distribution of illicit drugs into the United States. This method does little to control the use of alcohol which is available to all of

legal age, and often to those not of legal age. Further, it does little to curb the use of tobacco. Many argue that such supply reduction techniques are shortsighted, costly, narrow in scope, and generally not effective.

Another strategy used is to reduce the demand for substances. A demand reduction approach emphasizes treating those with addictions, while, at the same time, implementing prevention programs to avoid future demand. Because of the focus of the Committee on Benefits is on treatment, the next section will describe in detail the substance abuse treatment system.

A. Overview of the Substance Abuse Treatment System

The substance abuse treatment system is supported by a myriad of funding streams, including Federal, state, and local government grants; commercial insurance; federally sponsored entitlement programs; philanthropic donations; and self-pay. This multiplicity of funding streams has led to the development of a two-tiered system: one tier attracts commercial insurance, entitlement, and self-payment for services (the "private treatment system"); the other attracts grant funding for services (the "public health substance abuse treatment system"). Thus, private hospital-based providers are often reimbursed by commercial insurance and Federal entitlement funding, whereas Federal, state, and local government grants often fund the public health substance abuse treatment system made up of not-for-profit, community-based providers.

The challenges of meeting treatment needs in the two tiers of the substance abuse service system are quite different. In the private system, it is fairly clear who is eligible to receive services, that is, those who meet certain eligibility requirements. Eligible persons are frequently referred to as "enrollees" or "beneficiaries." Their eligibility is often based upon income level, disability status, or enrollment in a commercial insurance plan. In this segment of the substance abuse service system, the number of enrollees or beneficiaries is finite and clearly identifiable, because they have met eligibility requirements and are enrolled by an enrolling body. A provider can admit all enrollees or

beneficiaries who walk through its door, as long as treatment capacity is available. More important, services will be paid for because these programs are designed to purchase services on behalf of their enrollees or beneficiaries.

In the public health substance abuse treatment system, the situation is murkier. This portion of the system is often funded by a grant-in-aid system that is designed to provide operational support to an agency, rather than to purchase specific services. Federal, state, and local grants do not guarantee that services requested by all will be available. Agencies that administer grant-in-aid programs usually do not maintain lists of specific eligible recipients; they simply impose a broad requirement that recipients meet the criteria for the statutorily defined categorical class.

If grant funds are exhausted before the end of the grant year, no additional funds are guaranteed, no matter how many clients request services. Even in grant-in-aid programs that use some form of a purchase-of-service system, no guarantee exists to provide services to all seeking them.

The public health substance abuse system tends to treat those who have no other resources. It also provides services that are not eligible for reimbursement in the private system. Thus, for example, non-hospital residential services (e.g., halfway houses) are generally not covered in the private system, but are supported in the public health system. The public health substance abuse treatment system also tends to supplement or "wrap around" private services, but makes no guarantee that its services will be available on demand to all.

In the private system, there is no one "authority" to whom all treatment providers must either directly or indirectly report. In the public health substance abuse system, the Federal Center for Substance Abuse Treatment (CSAT) and state governments, have, by virtue of their funding authorities, some ability to require reporting. This lack of a central reporting function makes it difficult to establish the exact size of the substance abuse

service system. It is possible to take "snapshots" of various portions of the system, but an integrated picture of the whole is nearly impossible to achieve.

This next section will give two such snapshots. One will reflect the private and the other the public health system. The emphases of each snapshot will be slightly different, giving a sense of the difficulty of seeing the whole. This section is designed to give the reader an understanding of the size and complexity of the substance abuse service system, its funding, and the diversity of patient populations it serves. The size, scope, diversity and funding of the system have implications for efforts to implement new systems of measuring outcome. For example, under-funded and over-regulated programs may not be amenable to new systems to monitor their performance. Further, implementing new outcome monitoring systems in about 10,000 programs may be impossible; in fact, even implementing a new system in just 10 per cent of the total system would present a major challenge.

B. The Uniform Facility Data Set[ii]

One method used by the Federal government to assess the characteristics of the substance abuse service system is through the Uniform Facility Data Set (UFDS)[iii], which is a survey administered by the states. UFDS is paper-based and used to determine, in part, the capacity of the nation-wide service system for persons with addictions. It is designed to monitor the scope of specialty treatment activities, particularly those ***funded by the federal and state*** governments. It is important to remember that the survey is focused on those services that are publicly funded because it tends to limit how much the findings can be generalized to the private system.

This report presents data from the 1996 UFDS Survey. It also extends the series of substance abuse treatment data collected since 1976 by the National Drug and Alcoholism Treatment Unit Survey (NDATUS).

UFDS is the only national census of specialty substance abuse (i.e., alcohol or other drugs) treatment facilities. It seeks information from all freestanding facilities that treat only substance abuse, and from specialized substance abuse units within multi-purpose health care institutions (for example, hospitals). Facilities report information about all of their clients in treatment on a specific reference day. Facilities also report data that describe other aspects of their treatment operations. The focus of this report is on selected data from state-recognized facilities that have been consistently reported in prior years.

In addition to the highlights listed below, there are two broad findings concerning the structure of the specialty substance abuse treatment industry arising from the 1996 UFDS. First, although the total number of clients has grown over time, broad characteristics of facilities have remained stable or changed gradually between 1980 and 1996. The direction and degree of changes indicate how specialty substance abuse treatment has responded to changes in the population needing treatment and to funding constraints.

Second, large differences exist among the states in the number of clients in treatment as a proportion of the general population, in the substance abuse problems being treated, and in the mix of outpatient versus 24-hour care. These differences reflect many factors, such as the number of substance abusers, the types of substances abused, and the availability of funds to pay for treatment. To some extent, they may also reflect State funding and reporting practices. This section draws heavily upon UFDS information, but it also includes information from other sources to provide a comprehensive description of the substance abuse treatment system.

1. Clients in Treatment

Across the United States, there were approximately 940,000 clients in specialty substance abuse treatment on October 1, 1996. The geographic distribution of clients by county is shown in Figure 1.

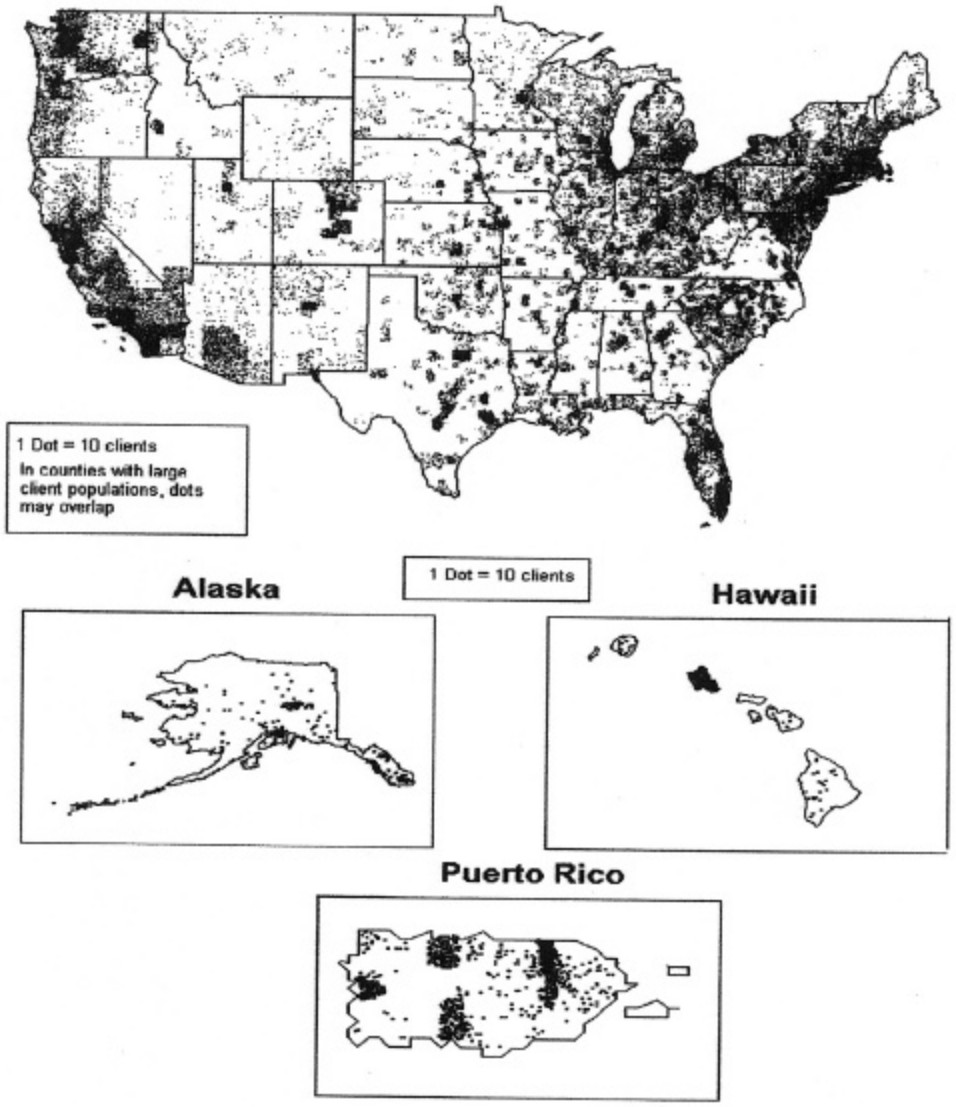


Figure 1. Distribution of Clients by County

There were 423 clients for every 100,000 people in the general population age 12 years and older. However, this rate varied by state and by region. The Northeast (540) and

West (525) regions have much higher rates than the Midwest (398) and South (311) regions. Among the states, the District of Columbia had the highest rate (974) and Mississippi the lowest (149).

2. Substances of Abuse

UFDS classifies clients into three groups according to their substance abuse problems:

- Alcohol-only;
- Drug-only; or
- Both alcohol and drug.

Among 43 percent of clients in treatment, abuse of both alcohol and drugs was the most common pattern of substance abuse across the United States. The remaining clients were divided between alcohol-only abuse (28 percent) and drug-only abuse (29 percent).

Substance abuse patterns among clients varied across the four census regions. The proportion of alcohol-only clients was highest (32 percent) in the Midwest and lowest in the Northeast (20 percent). The proportion of drug-only clients was highest in the Northeast (38 percent) and lowest in the Midwest (23 percent). The proportion abusing both alcohol and drugs was relatively equal in all four regions at 45 percent in the South and Midwest, and 42 percent in the Northeast and West.

Substance abuse patterns varied more widely among the States in terms of the proportion of clients with alcohol-only versus drug-only versus both alcohol and drug problems. States with the highest percentage of alcohol-only clients were West Virginia (63 percent), South Dakota (57 percent), Kentucky (50 percent), Alaska (48 percent) and North Dakota (46 percent). States with the lowest were Connecticut (15 percent), Louisiana, New Jersey, and New York (17 percent), Texas (18 percent), and Alabama and Maryland (19 percent). Drug-only clients were most heavily represented in the northeastern states of New York (45 percent), Connecticut (44 percent), New Jersey (43 percent), and Rhode Island (40 percent). South Dakota (5 percent), Alaska and New Hampshire (8 percent), and Wyoming (10 percent) had the lowest proportion of drug-

only clients. Clients being treated for both alcohol and drug abuse constituted the largest percentage of clients in treatment in Massachusetts, Missouri, New Hampshire and Washington (55 percent). West Virginia (23 percent) and Arizona (25 percent) had the lowest percentage of these clients.

3. Client Demographics

There has been an increase in the proportion of women in treatment. Between 1980 and 1996, their share increased from 25 percent to 32 percent of all clients.

There has been a gradual aging of clients in treatment. The proportion of clients between the ages of 18 and 24 declined from 20 percent in 1987 to 13 percent in 1996. During the same period, the proportion of clients between the ages of 35 and 44 increased from 23 to 32 percent. Similar increases also occurred among clients age 45 and over. The proportion of clients in the youngest age group (under age 18), declined substantially between 1987 and 1992 from 10 percent to 5 percent. Since 1992, however, this declining trend has been reversed with the youngest age group accounting for 8 percent of all clients in 1996.

On October 1, 1996, whites accounted for the largest share of clients (59 percent) in treatment, followed by blacks (23 percent) and Hispanics (14 percent). Black and Hispanic clients were over-represented in the treatment population compared to the general population age 12 and older (12 percent and 10 percent, respectively).

Similarly, while the national rate of clients in treatment was 423 per 100,000 population age 12 and older, the rates for blacks and Hispanics were higher than for whites (874, 612, and 337, respectively).

The racial and ethnic composition of clients changed little between 1980 and 1996. The proportion of whites declined from 63 percent to 59 percent. The proportion of blacks rose two percentage points from 21 percent to 23 percent.

4. Facility Setting and Service Orientation

More than half (51 percent) of all substance abuse treatment clients on October 1, 1996 were being treated in facilities that identified themselves as facilities concerned mainly or only with substance abuse treatment (freestanding facilities).

Another 22 percent of clients were treated in facilities that classified themselves as multi-service mental health organizations.

5. Treatment-Related Services Offered

Individual therapy (offered by 94 percent of all respondents), comprehensive assessment and diagnosis (92 percent), and group therapy (90 percent) are offered in almost all treatment settings, with referral to other services (85 percent) also commonplace.

Least commonly offered services include acupuncture and perinatal care (4 percent of all facilities), prenatal care (6 percent), family planning (7 percent), and TB treatment (10 percent).

6. Managed Care Arrangements

Facilities reporting themselves as managed care organizations (MCO) made up less than 2 percent of the facilities in the 1996 UFDS while those with and without formal arrangements with MCOs were 42 percent and 55 percent, respectively. On average, facilities with formal written contracts with MCOs reported nine such contracts. In 1996, 44 percent of all clients were in facilities that reported themselves as either MCOs or had formal contracts with MCOs compared to 39 percent in 1995.

7. Treatment Services

Most clients (88 percent) were in outpatient care on October 1, 1996. Outpatient clients in single modality settings were predominately in drug-free programs (76 percent of total outpatients). The remaining outpatient clients (24 percent) received narcotic substitutes as part of treatment.

There was wide variation in treatment services delivered in different states. On October 1, 1996, Minnesota, Mississippi, and Texas had the smallest share of clients in outpatient care (less than 66 percent) and the greatest share of clients in 24-hour care (35 percent or greater). Kentucky and Vermont had 95 percent of clients in outpatient care and Colorado, Maine, Maryland, Michigan, New Mexico, Rhode Island, and South Carolina had 94 percent of clients in outpatient care.

The proportion of clients in outpatient care remained relatively stable between 1980 and 1996, increasing from 84 percent in 1980 to 88 percent in 1996.

8. Treatment Services, 1980-1996

The UFDS survey asks treatment facilities to report a one-day census of clients for different types of treatment. From the viewpoints of cost and services received by clients, three treatment categories are critical:

- Outpatient;
- Rehabilitation (24-hour care); and
- Detoxification (24-hour care).

Outpatient narcotic substitute treatment is distinguished as a subset of the three services, because it involves the prescription of a regulated narcotic as an oral substitute for heroin. Across the nation, on October 1, 1996, 87 percent of clients were enrolled in drug-free and 13 percent in narcotic substitute programs.

The proportion of outpatient rehabilitation clients increased slowly between 1980 and 1996 from 84 percent to 88 percent.

In 1996, the highest proportion of clients in detoxification (24-hour care) was 6 percent in Georgia. Less than 3 percent of all clients were in detoxification (24-hour care) in all other states except Massachusetts, Minnesota, Mississippi, North Dakota, and Washington.

However, states varied widely in their proportion of clients in outpatient versus rehabilitation (24-hour care). Mississippi (41 percent) had the highest proportion of clients in rehabilitation (24-hour care), followed by Texas (34 percent), Minnesota (31 percent), and Alabama (23 percent). Kentucky and Vermont had the highest proportion of clients in outpatient treatment (95 percent), followed by Colorado, Maine, Maryland, Michigan, New Mexico, Rhode Island, and South Carolina (94 percent).

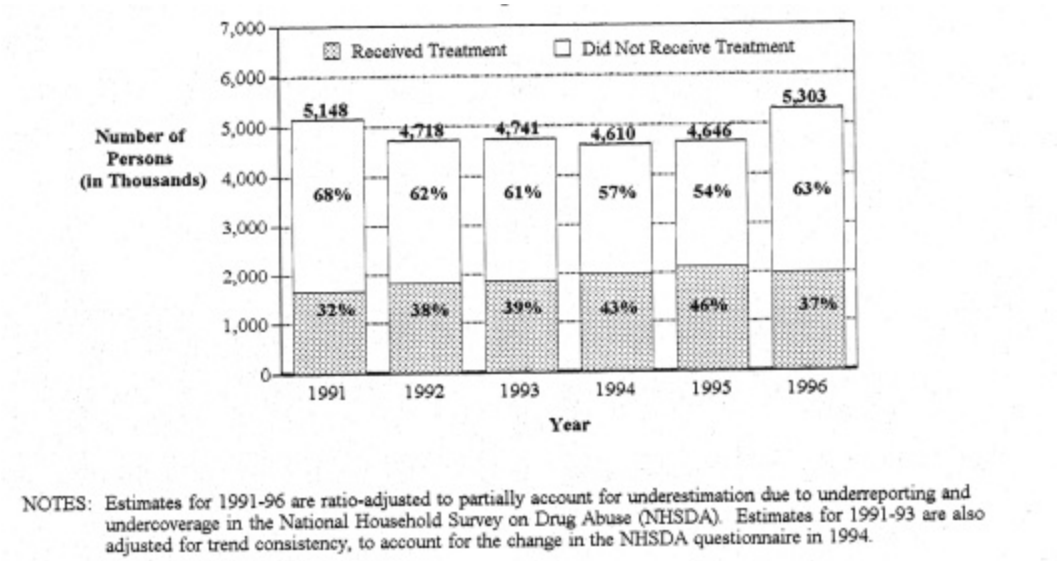
Connecticut (31 percent) had the highest proportion of clients in narcotic substitute treatment, followed by New York (30 percent), Nevada (25 percent), New Jersey (23 percent), and Rhode Island (22 percent). Seven States reported no narcotic substitute treatment clients. Four states reported less than 1 percent of clients in narcotic substitute treatment.

When the states are ranked by the number of clients per 100,000 in the general population age 12 and above, there appears to be a positive correlation between clients per 100,000 and the proportion of clients in outpatient treatment. In other words, the higher the rate of clients in treatment, the greater the proportion of clients in outpatient care.

9. Unmet Need

According to an analysis by the Center for Substance Abuse Research (CESAR) at the University of Maryland, nearly two-thirds of people needing drug abuse treatment do not receive it,[iv] according to an analysis of data from the National Household Survey on Drug

Abuse (NHSDA). An estimated 5.3 million people were diagnosed as needing treatment for severe drug abuse problems in 1996 (the most recent year for which analyzed data are available). However, only about one-third (37 percent) received treatment for drug abuse, a proportion consistent with previous years' estimates. These estimates of the need for treatment are improved over previous estimates because they adjust for undercounting and underreporting of hard-core drug users by linking NHSDA data on arrests and treatment with outside sources of data. A summary of these data is presented in Figure 2.



NOTES: Estimates for 1991-96 are ratio-adjusted to partially account for underestimation due to underreporting and undercoverage in the National Household Survey on Drug Abuse (NHSDA). Estimates for 1991-93 are also adjusted for trend consistency, to account for the change in the NHSDA questionnaire in 1994.

Figure 2. Estimated Number of Persons Needing and Receiving Treatment for Severe Drug Abuse Problems, 1991-1996

10. Funding Sources

According to UFDS, public funds accounted for 69 percent of the total treatment facility funding, with 48 percent coming from special appropriations from local, state, and Federal funds earmarked for substance abuse treatment as well as other unspecified public funds, and another 21 percent coming from Medicaid and Medicare. Client payments and private health insurance paid for 27 percent of treatment services. About 5 percent of total substance abuse treatment funding came from other or unreported sources.

Funding sources varied by facility ownership and setting. Private-for-profit facilities received more than half (54 percent) of their total funding from client payments and private health insurance compared with 25 percent for private non-profit facilities and 8 percent for public facilities. In addition, public funds accounted for 90 percent of the total funding for publicly owned facilities but only 42 percent of the funding for private-for-profit facilities.

Funding sources also varied by jurisdiction. Rhode Island (52 percent) had the largest proportion of revenue from client payments and private health insurance while Alaska (8 percent) had the smallest proportion. Medicare and Medicaid contributions to total funding ranged from 48 percent in New York to 2 percent in Hawaii. Alaska (89 percent) topped the list of States with the highest proportion of funding from public sources while Nevada (47 percent) had the lowest proportion.

11. Facilities Reporting Private Funding Only

Consistently, between 1980 and 1996, facilities relying on private funding exclusively (16 percent of all facilities in 1996 representing 13 percent of all clients) had lower utilization rates for 24-hour care (i.e., more capacity that is unused). For 1996, private facilities reported using 58 percent of their 24-hour rehabilitation capacity, while the average for all facilities was 71 percent. Publicly funded facilities reported slightly higher utilization rates overall (72 percent).

Between 1980 and 1996, privately funded-only facilities treated a higher share of clients who were male, white, and Hispanic than did all facilities. Conversely, they treated proportionally fewer female and black clients.

Over this time, privately funded-only facilities shifted more rapidly than others did from 24-hour to outpatient services. In 1980, 20 percent of their clients on the UFDS survey reference date were in 24-hour care; by October 1, 1996, that proportion had dropped to 5

percent. For all (mostly publicly funded) facilities, this proportion declined from 16 percent in 1980 to 12 percent in 1996.

UFDS provides a wealth of information about the specialty substance abuse treatment system. The system is in flux; more outpatient services are being provided than ever before, especially in privately funded agencies. In addition, unused capacity is apparent in those agencies that are privately funded. None of this is particularly surprising, given managed care's emphasis on outpatient services, and its low utilization of 24-hour care. UFDS is also showing the aging of the population under treatment.[v] In addition, UFDS provides us with a helpful way of looking at the services being provided by an agency. That is, it permits categorizing services both by their setting, and by their type. This helps eliminate confusion when, for example, outpatient services are provided in a halfway house. UFDS does not inform us, however, about average length of stay or about funding patterns. This information would be extremely helpful to understand fully the substance abuse treatment system.

C. Other Facility Funding Information

The **SAMHSA Substance Abuse and Mental Health Statistics Sourcebook**[vi] also contains information about the funding of substance abuse services. Some of SAMHSA's findings include:

- Public subsidies represent the most important source of funding for facilities specializing in drug abuse treatment (40 percent of revenues). Public subsidies are made up of state and local funds and Federal Block Grants. Other public sources of funding include Medicaid, Medicare, and CHAMPUS. All public sources together account for over 50 percent of treatment funds. Private insurance, including HMO's, accounts for another 30 percent, and client fees for 11 percent of the total funding received by the specialty drug abuse facilities, based upon 1990 data.

- In 1992, the expected payment source differs by race/ethnicity for admissions to publicly funded substance abuse treatment facilities. More Puerto Ricans (46 percent) use public entitlements than any other group. More whites use

private insurance (12 percent) or self-pay (32 percent). Overall, private insurance was expected to pay for the care of 10 percent of clients.

- In 1990, clients were equally likely to use public entitlements (22 percent), private insurance (23 percent), and self-pay funds (23 percent) as the primary source of payment in specialty substance abuse treatment facilities. Clients in methadone and residential treatment were least likely to use private insurance, while those in hospitals were most likely to use private insurance.

- In 1990, the per capita cost for alcohol and drug treatment was estimated to be $46.[vii]

D. Other Facility Funding Data: The National Treatment Center Study

The National Treatment Center Study (NTCS) (Roman & Blum, 1997)[viii], funded by the National Institute on Alcohol Abuse and Alcoholism (NIAAA), was conducted using on-site interviews at a nationwide random sample of 450 private-sector substance abuse treatment centers. This study provides a snapshot of the private treatment system. The purpose of the study was to understand how agencies cope in the ever-changing health care system. To be included, the agencies were required to receive the majority of their operating funds from private sources.

Among all administrators interviewed, 31.6 percent reported that at some time since their founding, their program had been seriously threatened with being closed. Eleven percent of the total reported that they were currently faced with a threat of closure. Yet when asked of the likelihood of closure, only 0.2 percent indicated that the chance of closure was high. Eight and one-half percent rated the chance of their closure as moderate. The authors followed their sample over time to determine what actually happened. At the date of publishing their report (the timeframe was from September 1986 to sometime in 1997), they found that 20 (about 4 percent) of the 450 participating centers had closed. Twelve of these had rated the threat of their closure as moderate or high. Eight of the now closed programs rated their threat of closure as low. Further, 56.2 percent of the centers were contemplating expansion. These plans were primarily targeted at increasing the number of clients served, with about half of the expansion being in outpatient services. Only 12.7 percent were anticipating increasing bed capacity. Thirty-six were

considering cutbacks in services. These data suggest that there is instability in the treatment system, and that administrators are not good predictors of the future; that shifts to outpatient services continue; and that the substance abuse treatment system is changing and uncertain.

The respondents were asked to compare their census on the day of their interview, in each level of care, to the average census over the past year. These data appear in Table 1.

Table 1. Comparison of Day of Reporting Census to Average of Past Year (Data are Expressed as a Percentage of Centers Reporting Census Figures for Each Level of Care)

Level of Care	% with Higher than Avg. Census	% with Same as Avg. Census	% with Lower than Avg. Census
Detox	42.9	37.3	19.8
IP adult CD	54.4	27.0	18.6
IP adolescent CD	54.9	32.2	12.9
IP adult psych	58.2	28.4	13.4
PHP/Day Tx	43.3	35.2	21.5
IOP	39.2	28.9	31.9
Outpatient	24.5	58.3	17.2

These data suggest that in spite of a shift to outpatient services, services tended to be under-utilized on the reporting day.

Figure 2 reflects the average proportion of patients paying with the following payment types:

- Medicare;
- Medicaid;
- Commercial insurance;
- Charity;
- Public funds; and
- Self-pay.

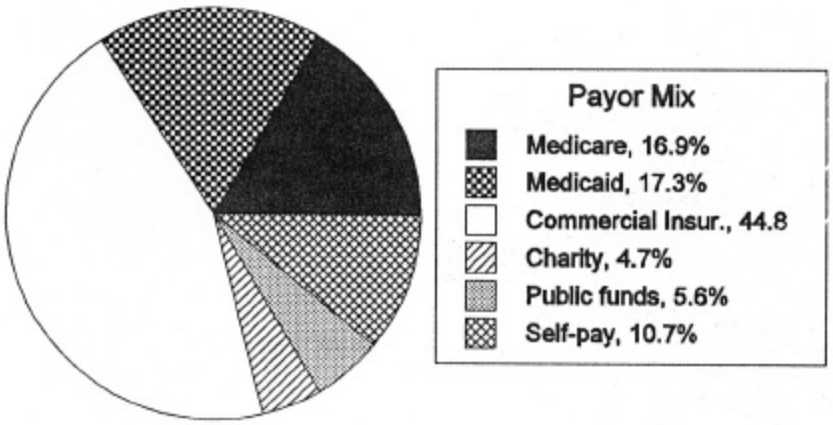


Figure 3. Average Proportion of Patients Paying With Each Source of Payment.

For these private agencies, commercial insurance is the largest payer. This is contrary to conventional wisdom that there is not financial support from private insurance for substance abuse services.

Table 2 provides a percentage of centers, by type, which receive each source of payment.

Table 2. Percentage of Centers, By Type, Which Receive Each Source of Payment

	All Centers	Non Profit	For Profit	Hospital	Freestanding
Commercial Insurance	44.8 %	44.8 %	42.9 %	43.9 %	44.6 %
Medicaid	17.3 %	18.7 %	15.0 %	19.8 %	11.8 %
Medicare	16.9 %	14.4 %	21.1 %	19.5 %	11.1 %
Self pay	10.7 %	9.3 %	13.2 %	7.4 %	17.9 %
Public funds	5.6 %	7.1 %	3.3 %	4.4 %	8.4 %
Charity	4.7 %	5.4 %	3.6 %	5.1 %	3.9 %

The researchers asked administrators to provide their "retail" charges for each of their levels of care. These data are shown in Table 3.

Table 3. Retail Charges by Level of Care

Level of Care	Range	Mean	1st quartile cutoff*	2nd quartile cutoff*	3rd quartile cutoff*
Detox	$80 - $2000	$585.68	$420	$525	$700
IP CD, adult	$47 - $1700	$509.03	$339	$459	$650
IP CD, adolescent	$135 - $1500	$591.59	$348	$466	$863
IP Psych, adult	$186 - $1300	$726.89	$550	$700	$950
PHP / day program	$75 - $700	$266.71	$200	$250	$323
IOP	$22 - $400	$136.29	$97	$130	$162
OP	$10 - $280	$70.32	$45	$65	$90

*Note: Quartile cutoffs are provided to indicate relative distribution of charges across facilities and may be interpreted as follows: 1st quartile cutoffs indicate the point below which 25 percent of all centers fall; 2nd quartile cutoffs indicate the median charge, or the point below which 50 percent of all centers fall; 3rd quartile cutoffs indicate the point below which 75 percent of all centers fall. Conversely, the 3rd quartile cutoff also defines the most expensive 25 percent of all programs. Interpreting the Detox charges given in the above table, we see that 25 percent of all centers have daily charges between $80 and $420; 50 percent have charges at or below $525; 75 percent have charges at or below $700 per day; and 25 percent of all centers have daily detox charges exceeding $700 per day.

Tables 4 through 7 show comparisons of retail charges across various groups within the sample.

Table 4. Average Retail Charges of Hospital-Based and Freestanding Programs

Level of Care	Whole Sample	Hospital-based	Freestanding
Detox	$585.68	$603.92	$542.80
IP CD, adult	$509.03	$529.99	$467.93
IP CD, adolescent	$591.59	$594.03	$589.42
IP Psych, adult	$726.89	$699.48	$791.30
PHP / day program**	$266.71	$256.88	$292.53
IOP	$136.29	$137.56	$132.99
OP	$70.32	$73.61	$63.01

**Note: Differences in average daily charges between hospital programs and freestanding programs are statistically significant for this level of care.

Table 5. Average Retail Charges for Corporate-Owned and Non-Corporate Programs

Level of Care	Whole Sample	Corporate-owned	Non-Corporate
Detox**	$585.68	$643.81	$533.00
IP CD, adult**	$509.03	$571.67	$449.62
IP CD, adolescent**	$591.59	$716.06	$467.13
IP Psych, adult**	$726.89	$794.75	$612.86
PHP / day program**	$266.71	$291.38	$242.39
IOP	$136.29	$137.83	$135.13
OP	$70.32	$68.46	$71.75

**Note: Differences in average daily charges between Corporate-owned and Non-Corporate owned programs are statistically significant for these levels of care

Table 6. Average Retail Charges for For-Profit and Non-Profit Facilities

Level of Care	Whole Sample	For-Profit	Non-Profit
Detox**	$585.68	$711.76	$515.57
IP CD, adult**	$509.03	$633.18	$429.41
IP CD, adolescent**	$591.59	$760.91	$440.58
IP Psych, adult**	$726.89	$846.92	$635.29
PHP **	$266.71	$324.05	$234.17
IOP	**$136.29**	**$145.07**	**$131.76**
OP	**$70.32**	**$74.04**	**$66.26**

**Note: Differences in average daily charges between for-profit and non-profit programs are statistically significant for these levels of care

Table 7. Average Retail Charges, All Participating Programs, By Region

Level of Care	Northeast	Southeast	Great Lakes	Central	West
Detox	$499.18^{S}	$683.33^{N,G}	$509.88^{S}	$632.22	$619.99
IP CD Adult	$413.15^{S,C}	$583.66^{N,G}	$443.01^{S,C}	$616.74	$489.77
IP CD Adol.	$560.11	$837.80^{W}	$476.06	$795.44	$456.53^{S}
IP Psych	$728.43	$802.42	$573.44	$815.52	$728.98
PHP	$194.75^{W,C,S}	$321.52^{N,G,W}	$243.45^{C,S}	$300.46^{N,G}	$261.66^{N,S}
IOP	$135.37	$127.02	$143.69	$143.43	$125.57
OP	$74.04	$76.16	$70.51	$68.86	$57.06

Note: Statistically significant differences in average daily charges are denoted by superscript symbols referencing comparison group. For example, average daily charges for detox among centers in the Southeast are significant different from average daily detox charges at centers in the Northeast (N) and Great Lakes (G)

The NTCS provides some insights into the private-sector substance abuse treatment system. It confirms what many suspect, that is, retail charges are higher for corporate-owned programs and for for-profit programs. If retail charges are an indicator of discounted charges these programs likely charge purchasers more. In addition, the centers interviewed show a fair degree of under-utilization in outpatient services. This is

consistent with the UFDS findings. Yet, some of the centers are planning expansion of their outpatient services. The declining revenue, combined with the number of facilities that closed during the reporting period, provide some sense of the unpredictability that characterizes the operating environment of many programs. In all, these findings demonstrate the instability of funding for substance abuse treatment. Being dependent on commercial insurance for their operation, these programs are captive to the vagaries of insurers, including managed care plans. The substance abuse treatment system has many providers that are experiencing declining revenues, and increasing expectations for accountability. These pressures may lead the provider community to be hesitant to adopt any new systems that could further erode their stability and funding base.

IV. THE HISTORY AND SYSTEMS OF SUBSTANCE ABUSE FUNDING IN THE UNITED STATES

This section also analyzes how substance abuse services are funded. The focus in this discussion, however, is on systems of funding. That is, this section discusses the major revenue sources for substance abuse services and reviews some of the unique characteristics and requirements of each. Because substance abuse services at a provider level are funded by varied funding sources, it is not an easy task to comply with all requirements of each funding authority, making it difficult to implement uniform systems across all sources of funds. Different funding authorities use different units of service, information reporting formats, and management systems (such as outcome monitoring systems). This section will also present estimates of the amount of money, by source, being spent on substance abuse services within the United States.

A. Commercial Insurance

Commercial insurance has a long history in the United States. The oldest known insurance policy in the United States was written in Boston in 1745 for a Providence Rhode Island merchant. The second fire insurance company in the country owes its start to Benjamin Franklin. This was a mutual company that in the words of Franklin, works "whereby every man might help another without any disservice to himself". It was also

the first company to make definite contributions toward fire prevention. It recognized certain hazards and either warned against them or simply refused to insure building where these risks existed.

Insurance is a contractual arrangement that provides for compensation by an insurer to an insured party for loss resulting from a possible event. The insurer conducts its operations by amassing relatively small contributions from many persons who are exposed to the risk of an occurrence of an unforeseen event in order to create a fund that is used to reimburse those insured who actually suffer from such an occurrence. The contributions of the policyholders are called premiums. A contract of insurance is embodied in a policy that specifies the terms under which the insurer agrees to indemnify the policyholder for loss in consideration of the payment of a stated premium. An insurance contract must have an element of contingency, that is, the event insured against must be possible but not certain to occur in a given period and must be substantially beyond the control of either insured or insurer.

Pre-World War II, most individuals paid their own premiums and purchased the coverage that they felt would best meet their needs. After the War, with the rise of the labor union movement, employers began to pay the premiums on behalf of their employees. This shifted the cost (or risk) to the employer, leaving the employee somewhat insulated from the cost of his/her own health care. By the end of the 1980s, healthcare costs were increasing at nearly twice the rate of inflation. Part of the increase could be attributed to the isolation of the consumer from the cost of healthcare.

During the post-World War II period interest in covering mental health and substance abuse services began to be part of the agenda of the large labor unions. It became clear to the unions' leadership that behavioral health problems resulted in their membership becoming unemployed. Larger employers also began to realize that it was in their financial interest to provide coverage for behavioral health services. They could reduce their turnover, retraining, disability insurance, sick leave, and medical costs by paying for behavioral health care. Traditional indemnity insurance carriers, however, were less

sanguine about covering substance abuse and mental health. To their underwriters, the risks (i.e., cost) of covering these services were unpredictable. There were, and remain, assumptions that these were self-inflicted injuries (particularly substance abuse), and therefore not consistent with the principle that insurance should only cover events that are substantially beyond the control of either insured or insurer. This attitude has resulted in insurers either not covering behavioral health, or placing strict internal limits on coverage, such as a maximum of twenty days of inpatient care. Today, in fact, many individual policies do not cover behavioral health or they severely restrict coverage, or price such coverage out of the reach of most purchasers.

Another characteristic of commercial group insurance is that it covers employed individuals and families who have at least one employed member. The outcome literature indicates that people who are employed are among those with the highest rates of recovery. Thus, even with their hesitancy to cover substance abuse, commercial insurance carriers insure some of the best risks.

Because of this reluctance on the part of commercial insurers to cover substance abuse, many citizens lobbied for state-level mandates to require insurers to cover substance abuse. The majority of states now have a mandate in law that requires insurance carriers to provide substance abuse coverage while providing badly needed minimum coverage. Yet, these mandates were two-edged swords. What their sponsors regarded as minimum actually became maximum coverage; that is, insurance companies held only to the limits specified in the law. In addition, most of the legislation applied only to group, and not individual, policies. Because self-insured employers (those who underwrite the risk of coverage themselves) are exempt from state insurance laws, many large employers were still free to minimize or ignore substance abuse. For many insurance carriers the majority of their business is self-insured. Finally, and not inconsiderably, insurance carriers detest state mandates, based on the notion that they should offer only what employers are willing to purchase. State mandates take away the freedom of choice of the purchaser, and increase premiums for services not desired by the purchaser. This attitude makes it even more unlikely that the carriers will exceed what has been mandated.

In the 1980s, the rate of increase of health related costs was more than double that of inflation. Employers, the primary purchasers of commercial insurance, added these increased costs onto the price of their goods and services. Soon American businesses found themselves pricing their products out of the global marketplace. One effort to deal with this situation was President Clinton's 1993 health care reform proposal, the goals of which were to increase access and contain health care costs. This plan would have guaranteed health coverage for all Americans. Its administrative structure was complicated, bureaucratic, and roundly ignored by the Congress. Other methods of controlling costs have been gaining momentum during the last two decades of this century and are referred to collectively as managed care. These techniques will be discussed later.

In the 1992 National Household Survey on Drug Abuse, health insurance coverage for persons treated for substance abuse varied by income level. The higher the income of those who are treated, the greater is the likelihood that they have health insurance. Almost all of treated people with family incomes of $40,000 or more have health insurance. At more moderate-income levels ($10,000- $29,000), there are differences between those treated for alcohol and drug abuse: about 65 percent of treated alcoholics have health insurance, compared with about 80 percent of treated drug abusers. Health insurance coverage refers to coverage for any type of health problem, regardless of whether mental health and substance abuse are covered.

SAMHSA also reports that employer-based health insurance coverage is less comprehensive for mental health and substance abuse treatment than for treatment of other health problems. In medium and large companies offering private health insurance in 1991, more employees had limits on benefits for selected types of substance abuse and mental health treatments than for hospital and physician visits for other health problems. For example, 17 percent of the full-time employees had their hospital costs for other health problems covered in full compared with only 2 percent that had full coverage for inpatient mental health care.

It is noteworthy that employer-based health insurance coverage for behavioral health has declined over the past decade. These findings are based on a study by the Hay Group, a Washington-based actuarial and benefits consulting firm, which prepared the report for the National Association of Psychiatric Health Systems (NAPHS), the Association of Behavioral Group Practices and the National Alliance for the Mentally Ill. The NAPHS Education and Research Foundation funded the study.[ix] While the value of employers' general health care benefits declined 7 percent from 1988 to 1997, the value of behavioral health benefits declined 54 percent, the study reports. Behavioral health as a percentage of the total health care benefit dropped 50 percent, from 6.2 percent in 1988 to 3.1 percent in 1997. Behavioral health as a percentage of the total health care benefit has been in a steady annual decline, with no sign of leveling off. The study found that as costs for inpatient care were pushed down, so were outpatient benefits. In 1988, according to the study, 46 percent of plans that imposed an outpatient limit allowed a maximum of 50 visits. In 1997, the most prevalent limit was 20 visits. The Hay Group used data collected from 1,043 employers. Here are findings for the period between 1988 and 1997:

- While the value of general health benefits dropped 7.4 percent, the value of behavioral health benefits dropped 54.1 percent.
- Behavioral health as a percentage of the total health care benefit dropped 50 percent, from 6.2 percent to 3.1 percent, in a steady decline that shows no sign of leveling off.
- In 1987, 92 percent of employers reported fee-for-service as the most prevalent plan type. By 1997, only 20 percent of employers listed it as the most prevalent.
- In 1988, 26 percent of plans imposed an annual outpatient visit limit. In 1997, 48 percent of plans imposed such a limit.
- In 1988, 46 percent of plans imposing an outpatient limit allowed a maximum of 50 visits. In 1997, the most prevalent limit was 20 visits.

The Hay Group also analyzed a Mutual of Omaha study of benefits from 1991 to 1996, which it found to reflect national trends. The Mutual of Omaha study reported the following:

- Outpatient psychiatric encounters dropped 8.9 percent during the period. At the same time, general office visits of all types rose 27.4 percent.

- The average charge per outpatient psychiatric encounter dropped 7 percent, compared to a 5.9 percent increase for general office visits for all diagnoses.
- Psychiatric office encounters as a percentage of all outpatient office visits dropped from 19.1 percent to 13.7 percent.
- Inpatient days per 1,000 people dropped 68.8 percent for behavioral health disorders, compared to an 18 percent drop for general health diagnoses.
- Inpatient admissions per 1,000 for mental and behavioral diagnoses dropped 36.4 percent. Inpatient admissions per 1,000 for general health diagnoses dropped 11.2 percent.
- Average length of stay for behavioral disorders dropped 50 percent. Average length of stay for all diagnoses dropped 18.3 percent.

According to the Employee Benefit Research Institute[x], approximately 152 million Americans now have health insurance through their employers, while the number of uninsured is 43 million or 18.3 percent of the population. Individuals whose family head did not work were more likely to be covered by Medicaid (41.1 percent) or to be uninsured (28.4 percent) than to have employment-based health insurance (17.4 percent). However, the number of Americans with public coverage is dropping- - 26 million non-elderly Americans (11 percent) participated in the Medicaid program in 1997, down from 28.2 million (12.1 percent) in 1996. The report also found the following:

- Children, family head workers, other workers, and non-workers were all more likely to have employment-based health insurance than any other type of private or public coverage.

- The percentage of non-elderly Americans with employment-based health benefits varied among regions and states in 1997, from a high of 72.5 percent in the East North Central region to a low of 58.1 percent in the West South Central region. States with the highest proportion of uninsured individuals include Texas (26.70/6), Arizona (27.9 percent), and Arkansas (28.2 percent).

- Sixty-one million children were insured, while 10.7 million (15 percent) were uninsured in 1997 (the likelihood of a child having insurance and the source of that coverage are influenced by factors that include the family's income level and whether the family head works for a small employer). Children in families in which the family head works for a small employer are more likely to be uninsured than those in families in which the family head works for a large employer.

- The number of uninsured Americans continued to grow in 1997, even though the percentage of non-elderly Americans covered by employment-based health insurance increased for the fourth consecutive year, from 63 percent to 64.2

> percent in 1997. Over 50 percent of all non-elderly Americans who were uninsured in 1997 were in families in which the family head was either self-employed or worked in a firm with fewer than 99 employees, according to the report. Individuals with a family head working in a firm with fewer than 10 workers had a 34.6 percent probability of being uninsured. The likelihood of being uninsured was 28.6 percent for persons with a family head working in a firm with 10-24 workers, 19.9 percent for 25-99 workers, 15.3 percent for 100-499 workers, 12.9 percent for 500-999 workers, and 10.8 percent for 1,000 or more workers.

Private insurance has never seemed to be the ultimate answer for funding substance abuse services. It is generally limited to those employed and it rarely reaches those groups whose prevalence of substance abuse problems exceed their percentage of occurrence in the general population. Thus many under-served populations (e.g., racial and ethnic minorities, adolescents, single pregnant women) may not be covered, yet are at high-risk for substance abuse. In addition, commercial insurance does not have much of an effect on the supply of services because it purchases services from already existing providers. Thus, rural needs for treatment may go unmet because no services are available. In spite of these limitations, it is important to remember that of the National Treatment Center Study (NTCS) indicated that for private providers, commercial insurance is their largest single source of funds. However, given the decline in commercial behavioral health coverage over the last decade, private insurance is becoming less of a secure revenue source for local programs.

B. Public Entitlements[xi]

The largest U.S. public entitlements are known as Medicare and Medicaid. These programs were enacted in 1965. Medicare covers persons over the age of 65, certain disabled individuals under the age of 65, and those with end-stage renal disease. The Medicare plan consists of two parts: part A pays for hospital bills, and part B pays for physician's services. Part A is free to most enrollees; part B is voluntary and requires a premium payment. More than 95 percent of the aged purchase the coverage.

Although Medicaid is primarily an entitlement for the poor (also the aged, blind and disabled), not all low-income individuals are eligible. Each state determines eligibility within broad federal guidelines. According to the Social Security Act, Medicaid must cover a certain minimum of services, and states can elect to include additional services. The federal government reimburses the state for half or more of the cost of Medicaid, depending on the state's income level; the remainder is paid by the state.

Medicare provides 190 days that can be used in a lifetime for psychiatric care. In most states, Medicaid provides coverage for substance abuse detoxification and may optionally provide coverage for rehabilitation services, although the most frequent coverage is for hospital-based detoxification services. In 1996, according to the National Center on Addiction and Substance Abuse at Columbia University, the total impact of substance abuse (including tobacco) on federal entitlement programs could be conservatively estimated to be $77.6 billion. Of this, $66.4 billion represents costs directly attributable to substance abuse. Further, 92 percent of all substance abuse-related health entitlement costs is for treating the health consequences of tobacco, alcohol, and drug use. In contrast, only 8 percent are spent to treat the underlying disease of alcohol and drug dependence. Health consequences are defined as any illness that results from the abuse of tobacco, alcohol, or drugs, such as lung cancer or liver disease. The definition of direct treatment includes services to anyone with a primary diagnosis of non-dependent abuse of alcohol or drugs or alcohol or drug dependence.

Although funds are more readily available to treat the consequences of substance abuse than on the actual treatment of substance abuse itself, Medicare accounts for 16.9 percent of the revenue of private treatment agencies, based on the sample in the NTCS. Medicaid accounts for 17.3 percent. This revenue is important for the continued operation of the private-sector substance abuse treatment system. Commercial insurance and public entitlements together account for a very significant 79 percent of funds in the private-sector.

C. Distinguishing between Medicaid and Insurance Principles

This section will discuss the differences between Medicaid and commercial insurance principles.[xii] It is easy to think of Medicaid as public insurance. To be sure, Medicaid has the essential features of insurance: it is a program that entitles eligible persons to coverage for a defined set of health care items and services, many of which are also found in traditional insurance policies. In both Medicaid and insurance, coverage of enumerated items and services is limited to care that is medically necessary. At this point, however, the similarities between Medicaid and private insurance cease in certain keyways. Medicaid is a public, third party financing program that entitles eligible persons to a benefit package defined by federal statutes and regulations. This benefit package finances a broader range of health care than typically is available through insurance, and Medicaid beneficiaries generally are in poorer health than persons covered by private insurance. Actual coverage of enumerated benefits is governed by tests of reasonableness. On the other hand, traditional insurance is designed to cover an essentially healthy work force and operates in accordance with contractual principles of coverage. Moreover, while virtually all states mandate the inclusion of certain benefits in state-regulated insurance policies, the actual determination of coverage for any enumerated class of benefits is governed by the contracts of coverage between buyers and sellers. These principles can be quite different from those that govern Medicaid. Other differences include the following:

- **Medicaid/insurance Distinctions.** Medicaid covers many classes of benefits that are not commonly found in private insurance, such as long-term hospitalization for physical and mental health problems and nursing home and home health benefits without regard to prior hospitalization status. Medicaid benefits also must be covered without arbitrary limits on the amount or duration of coverage; this is especially true for children. For example, Medicaid-enrolled children with mental illness are entitled to all medically necessary care, while privately insured children may be covered for only a certain number of outpatient visits each year. Another distinction can be found in the definitions used to describe covered items and services. For

example, Medicaid's statutory definition of pregnancy-related care includes not only prenatal, delivery, and post-partum care but, unlike insurance, also care for conditions that could complicate pregnancy.

- **The "restore to normalcy" test.** One subtle but essential distinction between insurance and Medicaid is how the two systems address the coverage needs of persons with chronic illness. The principal goal of insurance is to cover workers and their families; thus, coverage may be limited to care and services that are necessary to permit an acutely sick person to recover to a prior normal functioning level. Care and services needed to maintain a chronically ill person in relatively stable but poor health might be excluded as not necessary under commercial insurance.

- **The "illness or injury" test.** Another distinction has to do with the scope of health problems covered by private insurance and Medicaid. Medicaid covers services needed to treat not only "illnesses and injuries", but also undefined conditions such as developmental disabilities in children that do not stem from an acute illness or injury. Excluding treatment for such conditions is permissible under traditional insurance, but not under Medicaid. For example, a toddler who needs speech therapy to ameliorate the effects of a developmental disability would be eligible for coverage under Medicaid but not under an insurance plan that limited speech therapy coverage to individuals recovering from an illness or injury (e.g., a stroke).

- **Exclusions and evidence.** An additional distinction between Medicaid and insurance involves the use of exclusions. As noted, both Medicaid and insurance coverage exclude coverage of services that are not medically necessary. However, insurers typically employ many more exclusions and may use broader measures to determine when something is excluded. For example, covered services furnished to children who need special education and related medical care under the Individuals with Disabilities Education Act may be excluded by insurers as "educational". However, this exclusion is expressly prohibited under Medicaid. Additionally, insurers may elect to exclude services that do not comport with industry developed practice guidelines or that have not been proven effective through controlled, randomized trials. Medicaid principles, on the other hand, require Medicaid agencies to use reasonable, non-discriminatory criteria in setting exclusions and limitations. For example, where a procedure is accepted among relevant health practitioners and there is no contradictory body of evidence from scientific studies to indicate its non-effectiveness, coverage must be permitted. Thus, insurance principles give insurers broad discretion to set the parameters of coverage in the absence of express contractual provisions requiring coverage. The discretion of Medicaid agencies, on the other hand, is bound by tests of reasonableness.

- **Procedural due process distinctions.** A final distinction has to do with the process for determining coverage and the procedures that must be followed when coverage is denied, reduced, or terminated. Medicaid policy limits the use of prior authorization programs, particularly in the area of prescription drug coverage. Additionally, prior authorization systems must function reasonably, taking into account the scope and speed of review, the review standards, and the evidence that reviewers must consider. In the case of prescribed drugs, states that use drug formularies must abide by certain prior authorization procedures and must provide immediate supplies of non-formulary drugs when an emergency medical need presents itself. In contrast, private insurers have broad latitude to fashion prior authorization programs. Because Medicaid is a need-based welfare program, constitutional principles of due process prohibit individual, fact-based coverage denials, reductions, or terminations from becoming final until an individual has been afforded an opportunity for a fair hearing. When the reduction or termination of assistance is involved, the decision of the agency cannot take effect until a fair hearing has been conducted, if a timely request for a hearing is made. Under Medicaid, the burden of proof falls to the agency to show why coverage should not be provided. An insurer's coverage decisions, on the other hand, may take effect immediately, and the burden is on the claimant to show that the insurer's determination violates the terms of the contract or principles of tort law.

Because Medicaid and commercial insurance funding are important to the private substance abuse treatment system, the differences between the two systems are important for the individual provider organization. Each system has its own set of requirements that must be met for a provider to be eligible for reimbursement. These differing requirements complicate the day-to-day operations of many treatment programs. This should be kept in mind when contemplating new requirements for the receipt of funding, such as an outcome-based purchasing system.

D. Federal Substance Abuse Treatment Funds

The Center for Substance Abuse Treatment (CSAT) of the Substance Abuse and Mental Health Services Administration (SAMHSA) was created in October 1992 with the congressional mandate to expand the availability of effective treatment and recovery services for persons with alcohol and drug problems. CSAT supports the nation's effort to provide specific services, evaluate treatment effectiveness, and use evaluation results to enhance treatment and recovery approaches.

CSAT administers the Substance Abuse Prevention and Treatment (SAPT) Block Grant, which is the primary tool the Federal government uses to support State substance abuse prevention and treatment programs. The SAPT Block Grant's total fiscal year 1998 appropriation was $1.36 billion.[xiii] These funds are allocated directly to the states according to a formula established in the authorizing legislation. States then distribute these funds to cities, counties, and programs within their jurisdiction based upon need. Of the SAPT Block Grant funds given to each state annually, Congress has specified that 70 percent be allotted to treatment services for substance-abusing individuals and 20 percent for prevention of alcohol, tobacco, and other drug abuse. SAPT Block Grant "set asides" were established for programs targeting special populations, such as services for women, especially pregnant and postpartum women and their substance-exposed infants, and, in certain states, for screening for HIV. Table 8 provides the SAPT Block Grant award for each state in FY 1998.

Table 8. SAPT Block Grant Allocations by State, FY 1998

FY 1998 - State / Territory Allocations

STATE/TERRITORY	Total Allocation	P.L. 104-121 (Non-add)
Alabama	$ 18,766,069	$ 724,781
Alaska	$ 2,045,493	$ 79,000
Arizona	$ 20,008,843	$ 772,779
Arkansas	$ 9,459,892	$ 365,359
California	$ 189,177,170	$ 7,306,385
Colorado	$ 19,331,042	$ 746,601
Connecticut	$ 15,049,798	$ 581,252
Delaware	$ 3,712,142	$ 143,370
District Of Columbia	$ 3,310,456	$ 127,856
Florida	$ 56,125,849	$ 2,167,687
Georgia	$ 30,207,385	$ 1,166,667
Hawaii	$ 6,382,425	$ 246,501
Idaho	$ 4,865,185	$ 187,902
Illinois	$ 57,457,219	$ 2,219,108
Indiana	$ 30,961,391	$ 1,195,788

Iowa	$ 11,945,086	$ 461,342
Kansas	$ 10,472,687	$ 404,475
Kentucky	$ 16,449,566	$ 635,313
Louisiana	$ 22,361,950	$ 863,661
Maine	$ 5,066,439	$ 195,675
Maryland	$ 27,488,907	$ 1,061,674
Massachusetts	$ 31,633,006	$ 1,221,727
Michigan	$ 53,819,688	$ 2,078,619
Minnesota	$ 19,883,464	$ 767,937
Red Lake Indians	$ 490,054	$ 18,926
Mississippi	$ 11,250,304	$ 434,508
Missouri	$ 22,195,118	$ 857,218
Montana	$ 3,732,709	$ 144,164
Nebraska	$ 6,066,301	$ 234,292
Nevada	$ 7,034,109	$ 271,670
New Hampshire	$ 4,591,261	$ 177,323
New Jersey	$ 39,985,543	$ 1,544,318
New Mexico	$ 6,779,047	$ 261,819
New York	$ 89,362,659	$ 3,451,357
North Carolina	$ 29,096,347	$ 1,123,756
North Dakota	$ 2,551,489	$ 98,543
Ohio	$ 61,964,608	$ 2,393,192
Oklahoma	$ 14,377,331	$ 555,280
Oregon	$ 14,395,138	$ 555,967
Pennsylvania	$ 54,924,670	$ 2,121,296
Rhode Island	$ 4,590,879	$ 177,308
South Carolina	$ 16,305,940	$ 629,766
South Dakota	$ 2,359,415	$ 91,125
Tennessee	$ 21,411,878	$ 826,967
Texas	$ 89,219,174	$ 3,445,815
Utah	$ 10,785,895	$ 416,571
Vermont	$ 2,522,716	$ 97,432
Virginia	$ 30,975,563	$ 1,196,335
Washington	$ 29,198,240	$ 1,127,692
West Virginia	$ 8,033,238	$ 310,259
Wisconsin	$ 23,362,586	$ 902,307
Wyoming	$ 1,639,236	$ 63,310
American Samoa	$ 226,342	$ 8,741
Guam	$ 644,346	$ 24,885
Northern Marianas	$ 209,754	$ 8,101
Puerto Rico	$ 17,043,767	$ 658,262
Palau	$ 73,178	$ 2,826
Marshall Islands	$ 216,480	$ 8,360
Micronesia	$ 512,483	$ 19,793
Virgin Islands	$ 492,671	$ 19,027
State Sub-Total	$1,275,182,600	$ 49,250,000

Territory Sub-Total	$ 19,419,021	$ 750,000
Set-Aside	$ 65,505,379	$ 0
TOTAL APPROPRIATION	$1,360,107,000	$ 50,000,000

The data in this table were developed by the Office of Applied Studies, Substance Abuse and Mental Health Services Administration, under the provisions of 42 USC 300x-33. The "Non-add" column reflects amount of additional funding included in each State/Territory allocation resulting from passage of PL 104-121

In 1997, over $1.1 billion in SAPT Block Grant funds were allocated to the 50 U.S. states, the District of Columbia, and 10 U.S. territories. The SAPT Block Grant funds supported 9,800 community-based treatment and prevention service providers, and provided more than 40 percent of the total substance abuse treatment and prevention budget in 60 percent of all states and territories.

E. OVERVIEW OF 1996 SPENDING FOR MENTAL HEALTH AND SUBSTANCE ABUSE TREATMENT

A recent article by McKusick et al. (1998)[xiv] provides the most current analysis of total spending for substance abuse and mental health services in 1996. These authors estimated that $66,704 billion was spent by providers on mental health services; $4,962 billion on alcohol abuse, and $7,614 billion were spent on other drug abuse. This totals $79,280 billion for mental health and substance abuse expenditures in 1996. These data are presented in Table 9.

Table 9. Estimated Mental Health and Substance Abuse (MH/SA) Spending, by Type of Provider and Diagnosis, Millions of Dollars, 1996

Provider type	Mental health		Alcohol abuse[a]		Other drug abuse[b]		Total MH/SA	
	Dollars (millions)	Percent	Dollars (millions)	Percent	Dollars (millions)	Percent	Dollars (millions)	Percent
Total MH/SA spending	$66,704	100.0%	$4,962	100.0%	$7,614	100.0%	$79,280	100.0%
General service providers								
Community hospitals[c]	10,774	16.2	2,137	43.1	1,328	17.4	14,239	18.0
Physicians	6,558	9.8	330	6.7	223	2.9	7,112	9.0
Home health	277	0.4	8	0.2	12	0.2	297	0.4
Nursing homes	4,714	7.1	150	3.0	26	0.3	4,890	6.2
Retail prescription drugs	5,871	8.8	22	0.4	–[d]	–[d]	5,893	7.4
Total general service	28,195	42.3	2,647	53.4	1,588	20.9	32,431	40.9
Specialty providers								
Psychiatric hospitals	11,083	16.6	322	6.5	841	11.0	12,246	15.4
Psychiatrists	3,682	5.5	179	3.6	125	1.6	3,986	5.0
Other professionals[e]	9,475	14.2	49	1.0	122	1.6	9,646	12.2
Residential treatment centers for children[f]	2,642	4.0	0	0.0	208	2.7	2,851	3.6
Multiservice mental health organizations[g]	11,627	17.4	403	8.1	533	7.0	12,562	15.8
Specialty substance abuse centers[h]	0	0.0	867	17.5	3,455	45.4	4,322	5.5
Other facilities for substance abuse[i]	0	0.0	495	10.0	741	9.7	1,236	1.6
Total specialty providers	38,509	57.7	2,315	46.6	6,026	79.1	46,850	59.1

NOTE: Expenditures are limited to MH/SA treatment.

[a] Includes patients with primary alcohol problems (based on first listed diagnosis for general service sector and for specialty sector on provider classification as alcohol only).

[b] Includes patients with primary drug disorders and patients with combined drug and alcohol disorders (based on first listed diagnosis for general service sector and for specialty sector on provider classification of drug only or alcohol and drug).

[c] Includes psychiatric units.

[d] We allocated retail pharmaceutical expenditures based on their indicated use and assumed that there were no approved retail medications to treat drug abuse. Expenditures on medications dispensed by a provider were allocated to that provider.

[e] Includes psychologists, counselors, and social workers.

[f] Estimates are based on a survey that did not distinguish alcohol from other substance abuse. All expenditures were assigned to "other drug abuse."

[g] Comprises a variety of providers, including community mental health centers, residential treatment facilities for the mentally ill, and partial-care facilities. Some providers treat persons with substance abuse problems.

[h] Includes methadone maintenance clinics and other facilities that primarily serve persons with substance abuse problems. Assumes that all services provided are primarily for treatment of substance abuse disorders.

[i] Constituted of facilities with units with specialized staff and treatment for substance abuse such as public health clinics, ambulatory treatment providers, health maintenance organization (HMO) centers, charitable organizations, correctional facility settings, and other entities. These organizations have substance abuse as a secondary mission. Assumes that all services provided are primarily for treatment of substance abuse disorders.

As has already been noted, the public sector plays a major role in funding MH/SA services. More than half of the funding for treatment came from public-sector payers. Private health insurance paid 26.3 percent of the expenditures. Client self pay made up 16 percent, and other private sources equaled 3.5 percent. These data are summarized in Table 10.

Table 10. Estimated Mental Health and Substance Abuse (MH/SA) Spending, by Source of Payment and Diagnosis, Millions of Dollars, 1996

	Mental health		Alcohol abuse[a]		Other drug abuse[b]		Total MH/SA	
Provider type	Dollars (millions)	Percent	Dollars (millions)	Percent	Dollars (millions)	Percent	Dollars (millions)	Percent
Total MH/SA spending	$66,704	100.0%	$4,962	100.0%	$7,614	100.0%	$79,280	100.0%
Private								
Client out-of-pocket	11,608	17.4	392	7.9	684	9.0	12,685	16.0
Private insurance	17,911	26.9	1,419	28.6	1,535	20.2	20,865	26.3
Other private sources	2,112	3.2	294	5.9	360	4.7	2,766	3.5
Total private	31,632	47.4	2,105	42.4	2,580	33.9	36,316	45.8
Public								
Medicare	9,607	14.4	608	12.2	441	5.8	10,655	13.4
Medicaid[c]	12,585	18.9	832	16.8	1,021	13.4	14,439	18.2
Other federal government[d]	1,322	2.0	465	9.4	1,256	16.5	3,044	3.8
Other state/local government	11,558	17.3	952	19.2	2,316	30.4	14,826	18.7
Total public	35,073	52.6	2,857	57.6	5,034	66.1	42,964	54.2

NOTE: Expenditures are limited to MH/SA treatment.

[a] Includes patients with primary alcohol problems (based on first listed diagnosis for general service sector and for specialty sector on provider classification as alcohol only).

[b] Includes patients with primary drug disorders and patients with combined drug and alcohol disorders (based on first listed diagnosis for general service sector and for specialty sector on provider classification of drug only or alcohol and drug).

[c] Includes both state and federal Medicaid expenditures.

[d] Includes Veterans Affairs, Department of Defense, and federal block grants.

MH/SA expenditures grew from $39.5 billion in 1986 to $79.3 billion in 1996, an average annual rate of 7.2 percent. In comparison, the Consumer Price Index (CPI) grew by 3.5 percent annually over this period. Table 11 presents estimated annual growth in MH/SA spending by type of provider from 1986 to 1996.

Table 11. Estimated Average Annual Growth Rate in MH/SA Spending, by Type of Provider, 1986-1996

Provider type	Mental health	Alcohol abuse[a]	Other drug abuse[b]	Total MH/SA
Total MH/SA spending	7.3%	1.7%	13.2%	7.2%
General service providers				
Community hospitals[c]	8.9	4.5	8.0	8.1
Physicians	9.1	6.8	10.7	9.0
Home health	26.6	26.6	26.6	26.6
Nursing homes	0.7	2.4	14.8	0.8
Retail prescription drugs	9.6	9.6	–[d]	9.6
Total	7.2	4.7	8.5	7.0
Specialty providers				
Psychiatric hospitals	4.4	–9.9	8.8	3.8
Psychiatrists	7.4	4.6	8.7	7.3
Other professionals[e]	8.5	–0.7	18.7	8.5
Residential treatment centers for children[f]	12.8	0.0	18.3	13.1
Multiservice mental health organizations[g]	8.8	3.4	14.7	8.7
Specialty substance abuse centers[h]	0.0	–1.1	16.9	9.8
Other facilities for substance abuse[i]	0.0	9.9	15.7	13.0
Total	7.3	–0.9	14.8	7.4

NOTE: Expenditures are limited to MH/SA treatment.

[a] Includes patients with primary alcohol problems (based on first listed diagnosis for general service sector and for specialty sector on provider classification as alcohol only).

[b] Includes patients with primary drug disorders and patients with combined drug and alcohol disorders (based on first listed diagnosis for general service sector and for specialty sector on provider classification of drug only or alcohol and drug).

[c] Includes psychiatric units.

d We allocated retail pharmaceutical expenditures based on their indicated use and assumed that there were no approved retail medications to treat drug abuse. Expenditures on medications dispensed by a provider were allocated to that provider.

[e] Includes psychologists, counselors, and social workers.

[f] Estimates are based on a survey that did not distinguish alcohol from other substance abuse. All expenditures were assigned to "other drug abuse."

[g] Includes community mental health centers, residential treatment facilities for the mentally ill, and partial-care facilities. Some providers treat persons with substance abuse problems.

[h] Includes methadone maintenance clinics and other facilities that primarily serve persons with substance abuse problems. Assumes that all services provided are primarily for treatment of substance abuse disorders.

[i] Includes facilities with units that offer specialized staff and treatment for substance abuse such as public health clinics, ambulatory treatment providers, health maintenance organization (HMO) centers, charitable organizations, correctional facility settings, and other entities. These organizations have substance abuse as a secondary mission. Assumes that all services provided are primarily for treatment of substance abuse disorders.

Table 12 compares MH/SA spending as a percentage of national health spending, by source of payment. These data show that the growth of spending for the treatment of MH/SA has been slower than the growth of health care spending generally.

Table 12. MH/SA Spending in Relation to National Health Spending, By Source of Payment, Millions of Dollars, 1996 and 1986-1996

	Millions of dollars, 1996			Average annual growth rate, 1986–1996	
Source of payment	MH/SA	PHC	MH/SA as percent of PHC	MH/SA	PHC
Total spending	$76,312	$942,698	8.1%	7.2%	8.3%
Private					
Client out-of-pocket	11,516	171,176	6.7	3.1	4.7
Private insurance	19,677	292,340	6.7	8.0	8.9
Other private sources	2,154	31,708	6.8	7.5	7.3
Total private	33,348	495,224	6.7	6.0	7.1
Public					
Medicare	10,655	197,827	5.4	9.2	10.2
Medicaid[a]	14,439	139,713	10.3	8.8	12.5
Other federal government	3,044	41,265	7.4	9.4	6.3
Other state/local government	14,826	68,668	21.6	7.2	7.3
Total public	42,964	447,473	9.6	8.3	9.9

NOTE: PHC is personal health care expenditures. Total MH/SA expenditures differ from that reported in previous exhibits because not all expenditures are counted in the National Health Accounts. Expenditures are limited to MH/SA treatment.
[a] Includes both state and federal Medicaid expenditures.

The findings from this study offer insights into what has happened to funding for MH/SA treatment services over the past decade, but particularly for substance abuse. Key points include:

- The annual growth rate of MH/SA spending is less than that for health care generally. This may reflect the greater impact of managed care on MH/SA services than on other sectors of health care.
- Out-of-pocket spending as a percentage of total MH/SA spending has been falling.
- Private insurance coverage for MH/SA services has become less generous in recent years, with a noticeable increase in the use of limits on benefits. On the other hand, a greater proportion of workers now has mental health coverage.
- Out-of-pocket expenditures are a smaller proportion of total MH/SA expenditures than total out-of-pocket expenditures are of total personal health care expenditures. This is consistent with the finding that public payers play a greater role in the MH/SA treatment system than in other types of health care.

V. TAXONOMIES

In order to discuss the substance abuse treatment system in a reliable way, there must be a standardized way to describe it. There must be standard definitions for the services provided, the facilities in which those services are delivered, the staff charged with delivering those services, etc. Without standardized definitions, the outcome of one residential program may differ from another, not because the outcomes are indeed different, but rather because the programs are not comparable. Similarly, the cost of services cannot be accurately determined if service units cannot be reliably and validly measured. Some of the variables related to outcome that require standardized definitions include:

- **Patient variables**- demographics, education, vocational history, social history, substance abuse history, treatment history, psychiatric history, legal problems, motivation;
- **Administrative variables-** program identifiers, admission date, discharge date, length of stay; and
- **Treatment variables-** Setting/level of care, therapeutic modality, context, treatment components, staffing.

Appendix I presents a glossary of terms used in the UFDS data collection effort. UFDS defines services within treatment settings. This matrix arrangement avoids the problem of confusing service type and setting. This taxonomy, however, does not define units of service by time, for example, nor does it address patient or administrative variables. An additional taxonomy provided by the American Society of Addiction Medicine (ASAM) in its patient placement guidelines[xv] (ASAM, 1996) is summarized in Appendix 2. In the ASAM schema, 6 assessment dimensions are to guide information gathering about the patient. When this is complete, one need simply use the information with the patient placement criteria to determine the appropriate level of care for the patient. The problem with the ASAM taxonomy is that a given level of care (for example, inpatient) appears in 2 different levels of service. Detoxification, which intuitively seems important enough to

deserve a level designation, does not receive one; rather detoxification cuts across the other levels.

Definitions of service types are critical for an effort aimed at precisely estimating what a service should cost, a task that is part of the Committee on Benefits mission. No taxonomy will be free of flaws. One UFDS flaw, shared by ASAM, is that the service types do not account for the same service having different goals. For example, outpatient services can be both primary treatment and aftercare. Primary outpatient treatment may be priced differently than outpatient aftercare. It is likely that costs for these two different types of outpatient care could also differ. The greater independence of categories found in UFDS is preferable for cost accounting purposes than the muddled taxonomy provided by ASAM. UFDS also has the advantage of being known by the states and most treatment programs. Its familiarity is an advantage. However, ASAM has had a tremendous impact on the provider community by helping to specify the relationship between patient clinical characteristics and level of care requirements. The use of ASAM is so prevalent that its definitions are becoming industry standard. This is not to say that ASAM can or should suffice for COB purposes. In fact, no current taxonomy seems sufficient to address the need for a comprehensive set of service definitions, patient variables, and treatment variables that have clinical merit, and applicability for financial and accounting purposes. Until there is a standard way to measure the substance abuse service system, it will be difficult to compare and contrast the work and output of different providers.

VI. TREATMENT OUTCOME

Probably no area of substance abuse treatment has been investigated more than the general area of treatment outcome. The research literature has many studies that assess the effectiveness of treatment. In addition, single state agencies for substance abuse monitor outcome as part of their ongoing treatment system management efforts. The federal government has sponsored many studies demonstrating the value of treatment. While the design of the studies (e.g., systematic monitoring versus one time studies) may

be different, each study type places demands upon providers and patients. The resource demand characteristics of outcome studies must be recognized and any new systems for collecting outcome must be cognizant of the limited resources of providers and patients.

A. Treatment Outcome Research Literature

The scientific literature is replete with outcome studies. The purpose of this section is to provide a brief discussion of relevant studies and it will also focus on several of the main issues arising from the literature.

The findings from the outcome literature are clear: treatment works. That is, all things being equal, those going into treatment are on average better after treatment (McLellan et al., 1993; Miller et al., 1990; Beasley et al., 1991). Most outcome studies reflect the improvement of a group or cohort of patients; they do little to assist in estimating the chance of an individual improving.

One major outcome issue is defining how to measure it. Some argue that abstinence after some period following treatment is the most appropriate measure. Others (McLellan, 1994) argue that, in addition to abstinence, other measures of outcome should be used, including:

- Safe and complete detoxification;
- Reduced use of medical services;
- Reduced crime;
- Return to employment;
- Reduced welfare and unemployment costs; and
- An end to family disruption.

Many researchers in the past have suggested that there is great advantage to matching clients to treatment. For example, results indicate (Schneider et al., 1995) that being married is consistently related to less drinking for men; yet for women, being married contributes to relapse in the short-term making relapse prevention planning and implementation critical for women. There is the suggestion that those patients with concomitant personality disorders should be treated differently than those without (Nace

and Davis, 1993). Pettinati et al. (1991) suggest that those with high psychiatric severity and/or lack of social support will have a better outcome in an inpatient program. They noted that mismatched outpatients were likely to experience more legal, social, employment and psychological problems while also feeling more troubled by family problems. Fuller (1990) reports that disulfiram appears to increase abstinent days in men with families and residential stability. He also reported that some behavioral therapies appear promising, but have been only studied in small samples and with non-dependent alcohol abusers. Many researchers (Bleiberg et al., 1994: French et al., 1993, D'Aunno and Vaughn, 1992) have found that longer lengths of time in treatment lead to higher recovery rates. This effect appears to be independent of the kind or level of care of treatment.

Longitudinal studies indicate that recovery is an on-again, off-again path (Swan, 1991). This is similar to many other chronic diseases, such as asthma, migraine headaches, etc. The implication for the researcher is that outcome could be measured when the patient is relapsing, although over the longer term the patient is significantly improved. This phenomenon may tend to bias outcome findings.

Treatment has the ability to offset much if not all of its costs (Hoffmann, 1991). Feldkamp (1994) found that providing treatment to cocaine users is 23 times more cost effective than controlling supplies in coca producing countries, 11 times more cost effective than interdiction, and 7 times more effective than domestic enforcement. A 1991-1992 study by the University of Chicago's National Opinion Research Center shows that for every dollar spent on alcohol and other drug treatment saves the public $7.00. The only negative result or loss was among those patients who lost income while they were undergoing drug abuse treatment.

B. Federally Sponsored Outcomes Research

1. NIDA and NIAAA

The Federal government has been greatly involved in the study of substance abuse treatment outcome. In part, this priority reflects the need to understand what works about treatment, but part also seems related to the need to justify continued funding for substance abuse treatment. From the government's point of view, it would be ill advised to fund a national treatment system that shows only marginal effectiveness. It is important to understand that the political agendas of the federal agencies involved in substance abuse treatment outcome research affect the design of their studies. Yet, any new initiative to develop an on-going outcome monitoring system must build upon some of the knowledge that has been gained from these Federal efforts. The next section will describe two large national studies of outcome sponsored by The National Institute on Alcohol Abuse and Alcoholism (NIAAA) and the National Institute on Drug Abuse (NIDA).

NIAAA supported the largest and most statistically powerful trial of psychotherapies ever undertaken in order to understand better matching patients to treatments. This eight-year study was designed to test whether different types of alcoholics respond differently to specific therapeutic approaches. The main findings lead researchers to conclude that patient-treatment matching does not substantially alter outcomes. This is a limited finding, however, in that it is based on only three different treatment interventions. A NIH news release summarizing the results of Project MATCH appears in Appendix 3.

NIDA sponsored the Drug Abuse Treatment Outcome Study (DATOS), which is a collaborative national research program for evaluating the effectiveness of community-based drug treatment in the United States. The major findings of DATOS are:

- For four treatment types (outpatient methadone; long-term residential; outpatient drug-free, and short-term inpatient), DATOS investigators found

reductions almost without exception in the use of all drugs including cocaine, heroin, and marijuana after treatment.

- Likewise, after treatment a smaller percentage of patients reported committing illegal acts, working less than full time, and thinking about or attempting suicide.

- Except in outpatient methadone programs, cocaine was the primary drug of abuse, with alcohol running a close second. Cocaine abuse was common even in outpatient methadone treatment programs for heroin addicts. About 42 percent of patients who entered methadone treatment programs also abused cocaine.

- Heroin use had decreased since the 1979 to 1981 period. Large decreases in the abuse of depressants such as barbiturates and tranquilizers had occurred.

- Short-term inpatient treatment programs yielded significant reductions in drug use, even though patients stayed in these programs no more than 30 days. This is one of the most surprising findings. This treatment mode had a high percentage of patients reporting daily or weekly use of cocaine in the year before treatment and a sharp decline in weekly and daily use after treatment. The percentage of patients reporting illegal acts and thoughts of suicide also declined significantly after treatment in these programs. The researchers are exploring whether continuing involvement in outpatient services and mutual help groups may have contributed to these positive outcomes.

- In every city studied in DATOS, support services such as medical, legal, financial, psychological, employment, and family services had declined dramatically, while the need for those services had increased.

- Patients surveyed by DATOS reported that it took them about 7 years after they first used their primary drug to enter treatment.

- 7,402 patients in the DATOS programs were diagnosed as substance dependent. 32.1 percent of those patients were dependent on cocaine alone. Of that 32.1 percent, 59.1 percent were male. Another 26.3 percent of the patients were dependent on both cocaine and alcohol, and, of those, 69.8 percent were male. In addition, 10.6 percent of the patients were dependent on heroin alone, and 64.2 percent of those were male.

- The prevalence of co-occurring psychological disorders among the group was high, especially for antisocial personality disorder (APD) and major depression. APD was characterized as a pattern of disregard for the rights of others, irresponsibility, and lack of remorse. Major depression was characterized as either a depressed mood or a loss of interest or pleasure for 2 weeks or more.

- The prevalence of those two disorders differed widely among men and women. Approximately 40 percent of the group was diagnosed with APD, and males were twice as likely as females to be diagnosed with the disorder. While 12 percent of the group had experienced a major depression, female patients were twice as likely as male patients to have done so.

- When the researchers looked at retention rates, they found big differences within each of the four treatment types and among individual programs. The investigators found that programs with low retention rates tended to have patients with the most problems, particularly antisocial personality disorder, cocaine addiction, or alcohol dependence. In addition, heroin abusers who also abused crack cocaine but not powder cocaine had significantly lower retention rates than other heroin abusers did.

- The major predictors of staying in treatment are: high motivation; no prior trouble with the law; getting psychological counseling while in treatment; and lack of other psychological problems, especially antisocial personality disorder.

2. CSAT

The Center for Substance Abuse Treatment (CSAT) of the Substance Abuse and Mental Health Services Administration (SAMHSA) is planning to launch a major initiative to evaluate the long-term outcomes of substance abuse treatment. The Persistent Effects of Treatment Studies (PETS) is a family of coordinated studies that will continue for five years. Collectively, the PETS project will evaluate the outcomes of drug and alcohol treatment received through a wide range of publicly funded programs employing a varied mix of treatment methods. Populations to be studied will be diverse in the nature and severity of their substance abuse, and in their personal characteristics and circumstances.

The conceptual underpinnings of the PETS recognize the chronic relapsing character of substance abuse disorders, and a focus on the longitudinal treatment careers of substance abusers. While most previous substance abuse outcome studies have examined changes taking place for only several months after a particular treatment episode, PETS will examine outcomes over a longer time period- up to 3 years. Careful attention will be given to the client's life history and stage in his or her treatment career, to what has

preceded their current treatment episode, and to any sequence of aftercare, relapse, and subsequent treatment that may follow.

Outcomes will be studied in several areas. Primary among these is change in the severity of drug or alcohol abuse. PETS will assess changes in the person's physical and mental well-being, family relationships, socially productive behavior, and employment status. Broader social areas include changes in costs for physical and mental health care, drug treatment, and public subsidies to support the individuals and their dependents. Other areas include changes in the level of criminal behavior often associated with substance abuse, and the attendant costs to the law enforcement, criminal justice and correctional systems.

PETS has several specific objectives. One is to determine what factors are associated with long-term treatment effectiveness, with reference to specific populations, drugs of abuse, and methods of treatment. Population groups to be examined include those defined by race/ethnicity, gender, family status, economic status, physical, or mental health status, homelessness, or criminal history. If it proves feasible, PETS will examine the cost offsets associated with substance abuse treatment. That is, reductions in spending for health care, welfare benefits, and the criminal justice system as a consequence of expenditures for substance abuse treatment. Finally, PETS will develop methods for gathering and evaluating long-term data on treatment providers and treated individuals that can be used by others. This effort will develop methodologies that funding agencies, service providers, and other researchers can use to measure the long-term clinical and social benefits of treatment and to improve the treatment methods for different populations.

To facilitate the collection of longer-term data on treatment involvement, the PETS study team will investigate the feasibility of building a “family of studies" by linking with other ongoing evaluation and data collection efforts. By building on existing efforts, PETS will minimize new data collection requirements for participating programs. Where new data are to be collected, PETS will track clients, conduct interviews and collect any other data

that is needed. In all cases, PETS will cooperate with those involved to coordinate its planning and implementation. Where possible, the research agenda will be tailored to be responsive to local conditions and issues of interest.

One model under consideration would identify CSAT-funded grant evaluation projects that might already have collected baseline and 6- or 12-month follow-up data. By collaborating with these projects, PETS could extend the follow-up period to 3 years or more. Critical issues in determining the feasibility of these collaborations will include the timing of these efforts, compatibility of the data collection instruments, ability to gain informed client consent, and availability of client tracking data. The CSAT grant programs that are being examined for possible collaboration include: Homelessness Prevention, Adult and Youth Marijuana Treatment Initiatives, Residential Women and Children/Pregnant and Postpartum Women, Managed Care, Treatment Outcome Performance Pilot Projects (TOPPS), HIV Outreach, and Criminal Justice Treatment Networks (Youth and Adult). In general, PETS would negotiate individually with local grantees and their evaluators, and include only those projects for which the collaboration holds the greatest promise for mutual benefit.

Another approach whose feasibility is being studied is to build the PETS through collaboration with individual states that have high quality and comprehensive information systems for publicly funded treatment services. While the Federal requirements for treatment episode information (Treatment Episode Data Set or TEDS) are relatively rudimentary, some states have developed more comprehensive systems that provide a rich portrayal of the mix of specific treatment services provided. Some of the state treatment information systems may be capable of providing relatively complete accounts of client treatment that take place before and after the episode marking a client's entry into the PETS. For example, a client's study entry and baseline assessment might take place in 1999, with PETS team members conducting annual follow-up interviews in 2000, 2001 and 2002. It might be possible to examine data in the state treatment information system to obtain details of treatment episodes that the client had in 1996 and

1997 as well. If feasible, this approach could provide more complete and accurate information than might be possible by relying on client reports alone.

Another potential advantage of collaborating with states and using their treatment information system is that they may have relatively comprehensive characterization of the specific treatment services provided to individual clients. Providing a more detailed description of the treatment process would constitute another significant advance over earlier large treatment outcome studies.

CSAT has also funded a series of outcome studies through contracts with the state substance abuse authorities. These studies are collectively known as the Treatment Outcomes and Performance Pilot Studies (TOPPS).[xvi] Contracts were awarded March 1997 totaling $6 million to 14 States to conduct substance abuse treatment outcome pilot studies. This initiative is a top priority of SAMHSA as it demonstrates a "partnership" between the federal government and the states in support of a series of studies to help prepare states in their development of a system or method for monitoring and evaluating substance abuse treatment services. Through a competitive proposal process, CSAT chose Arizona, Arkansas, Connecticut, Kansas, Maryland, Massachusetts, Minnesota, Missouri, North Carolina, North Dakota, Oklahoma, Rhode Island Utah and Washington to conduct pilot studies designed to address specific issues that involve statewide treatment program accountability. The Single State Authorities (SSAs) are empowered through these pilot studies to propose innovative state specific strategies to measure substance abuse treatment performance. The objective is to eventually incorporate these strategies into current state and national databases. The SSAs are studying performance and outcome measurement in relationship to various treatment issues, such as: the impact of managed care on substance abuse treatment effectiveness, the usefulness of assessment using various renditions of the Addictions Severity Index instrument, and the impact of culturally sensitive counseling on special populations. Each pilot study will be conducted for up to two years. CSAT provides technical assistance to each state over the length of the contract. Upon completion of the contract period, CSAT will develop plans for the dissemination of the study results to state and local governments, treatment providers and

the public. When the pilot studies are complete, the results will be compiled for use in enhancing the ability of treatment programs to measure their ongoing performance and overall effectiveness. In addition, CSAT recently announced it is awarding $9 million to 19 states to develop standardized methods for measuring the effectiveness of publicly funded addiction treatment programs through TOPPS II. Each selected state will receive three-year grants to develop more reliable systems for monitoring substance abuse treatment performance and outcomes. CSAT will use the data collected to develop a national treatment outcome database to help evaluate the overall success of treatment services. SAMHSA's move to convert the SAPT Block Grant to a more outcome-based "performance partnership grant" has led many states to ask the federal government for financial help in establishing the data systems they need to evaluate the performance of their grant-funded treatment programs. TOPPS II requires grantees to study a sample of all treatment populations and by using each state's outcome data to compile an interstate report. Phase two grantees are Arizona, California, Connecticut, Illinois, Iowa, Kentucky, Maryland, Massachusetts, Missouri, New Jersey, New York, Oklahoma, Texas, Virginia, Washington and a consortium made up of Arkansas, New Hampshire, Rhode Island and Utah, with Utah spearheading that coalition. Grantees will study a representative sample of federally funded programs to determine optimal measurements for client outcomes. Populations to be studied will include HIV-infected clients, persons in methadone programs, women in treatment and adolescents, with states examining services along their full continuum of care. In establishing their outcome measurement systems, states will have the option of using client self-reporting data; secondary databases, which re-examine data collected in the past; or integrated databases, which examine at how clients are doing after they leave treatment. States are required to use at least two of the four data collection points spelled out in the study: admission, in-treatment, discharge, and follow-up.

The National Treatment Improvement Evaluation Study (NTIES) is another of CSAT's primary treatment outcome evaluation efforts. Data from NTIES offer strong evidence of the positive effects of substance abuse treatment. As analyses continue, NTIES will provide CSAT with more specific information about the practical value of an array of

treatment approaches frequently discussed but seldom evaluated in naturalistic settings. NTIES data supply answers to crucial service questions about the impact of bundling services on outcomes, the role of clinicians, and the differential effects of therapeutic modalities.

The recently completed 5-year NTIES followed 4,411 clients in public sector, CSAT-funded treatment programs, assessing them at admission to treatment, at termination of treatment, and again 12 months after completing treatment. NTIES results, using multiple measures of outcome, found the following:

- Clients served by CSAT-funded treatment programs sustained the reduction in their alcohol and drug use by almost 50 percent;
- Treatment conferred lasting benefits, with significant decreases in drug and alcohol use continuing 1 year after treatment; and
- Clients reported increases in employment, income, and physical and mental health, as well as decreases in criminal activity, homelessness, and risk behaviors for HIV/AIDS one year after treatment.

Other NTIES findings included the following:

- **Reduced Drug and Alcohol Use.** When clients' drug use one year before admission to treatment was compared with their drug use one year following discharge, NTIES data showed the following:
  - Clients' use of their primary drug (i.e., those drugs that led clients to seek treatment) decreased from 72.8 percent to 37.7 percent, one year after treatment.
  - Cocaine use decreased from 39.5 percent before treatment to 17.8 percent 12 months after discharge from treatment, a 55 percent drop.
  - Use of heroin, which may be more treatment resistant than other drugs, decreased by nearly half, from 23.6 percent to only 12.6 percent one year after discharge. Crack was the drug of choice of about half of NTIES respondents, and its use showed a large and statistically significant post-treatment decline, decreasing from 50.4 percent before treatment to 24.8 percent in the 12 months after treatment. NTIES respondents

demonstrated a significant drop in alcohol abuse; 23 percent reported problem alcohol use before treatment vs. 7 percent after treatment.

- **Reduced Involvement in Criminal Activity**. Clients reported statistically significant decreases in multiple indicators of criminal involvement, with substantial reductions in both criminal behavior and arrests after treatment. NTIES data showed the following:

  - Changes in criminal behavior were large and statistically significant, ranging from an 81.6 percent decline in shoplifting to reductions of 78.2 percent and 77.6 percent in drug selling and battery, respectively.

  - Arrests for any crime dropped by 64.2 percent.

  - Financial support derived from illegal activities decreased from 17 percent to 9 percent.

- **Improved Employment, Income, and Housing.** Gains in employment and housing appear to be ancillary benefits of substance abuse treatment. NTIES data showed the following:

  - More clients (60.3 percent vs. 50.8 percent) reported receiving income from a job after treatment.

  - Client reports of homelessness dropped from 19 percent before treatment to 11 percent after treatment.

- **Improved Physical and Mental Health**. NTIES data showed that following treatment, clients' drug- or alcohol-related medical visits declined by 3.2 percent. The percentage of suicide attempts, reported panic disorders (both related and unrelated to alcohol or drug use), and other mental health problems declined significantly after treatment.

- **HIV Risk Reduction**. NTIES data suggest that treatment is effective in reducing rates of risky sexual behaviors. Compared to their pretreatment activities, clients successfully reduced behaviors that put them at risk of contracting HIV, including decreases in unprotected intercourse, the number of sexual partners, and the practice of exchanging sex for money.

Another major study conducted by SAMHSA is the Services Research Outreach Survey (SROS). The SROS interviewed 1,799 discharged clients randomly selected from a 1990 nationally representative sample of drug treatment programs, including hospital inpatient, residential, outpatient methadone, and outpatient non-methadone. By comparing self-

reported status (validated by urine tests) during the five years before treatment to the five years after treatment, an individual's change in drug use, health status, and social functioning was determined. Agreement between urinalysis and self-reported use of illicit drugs was high ranging from 89.7 to 98.5 percent. These changes, or outcomes, are the first to derive from a nationally representative sample of treatment. The SROS was designed to provide:

- A 1990 cohort of clients to use as baseline for possible changes in treatment outcomes following increased funding to the national treatment system in the 1990s;
- A before-to-after comparison to measure outcomes of treatment provided in 1990;
- A follow up of drug treatment clients five years after treatment to assess the level of sustained improvements in abstinence; and
- A first look at multiple treatment episodes before and after treatment in a 1990 population. The findings from the SROS were quite positive. Some of the major findings include:
    - The overall drop in the use of any illicit drug following treatment was 21 percent; a 14 percent decline in alcohol use; 28 percent in marijuana use; 45 percent in cocaine use; 17 percent in crack use; and a 14 percent drop in the heroin use.
    - The decrease in post-treatment substance abuse was larger among females than males.
    - Adolescents were the exception, showing a 13 percent increase in alcohol abuse and a 202 percent increase in crack use following treatment.
    - Those remaining in treatment the longest were more likely to reduce or eliminate abuse of substances following treatment.
    - Survey results confirm those of previous studies showing that treatment for substance abuse can significantly reduce crime.
    - Most criminal activity, including breaking and entering, drug sales, prostitution, driving under the influence and weapons use declined by between 23 and 38 percent after drug treatment.

- Older age groups were more likely to reduce their post-treatment criminal activities than were younger groups.

- Involvement in physical abuse and suicide attempts declined following treatment. There was a noticeable shift toward regaining and retaining child custody after drug abuse treatment.

- Housing that is more reliable was secured following treatment.

These federally sponsored efforts are often designed as special one-time studies. They are not intended to be ongoing outcomes monitoring systems. They do inform us about treatment outcome. Further, efforts to superimpose new systems of monitoring outcome should build upon these studies. The new initiatives should be sensitive to the demand that new monitoring systems would place on already resource-starved providers that may have had their outcome measured in a multitude of ways.

C. Privately Sponsored Outcome Systems

The past decade has seen the development, proliferation, growth, and consolidation of behavioral managed care organizations (BMCOs). As already noted, these BMCOs came into being to address the escalating costs of healthcare related to substance abuse and mental health disorders. While initially designed to control costs, the BMCOs have also focused their efforts on improving access to care and improving quality. To demonstrate their commitment to quality, some of them have begun to generate outcome data. The desire of these companies is to identify statistically derived "best practices" in order to match a patient's need with the most suitable treatment available. The present day state-of-the-art may fall short of this goal, but nevertheless these for-profit companies are attempting to develop outcome systems that will improve the quality of individual patient care. Note that these are generally ongoing monitoring systems as opposed to one-time studies. Unfortunately, in contrast to the federal studies, the results from the private systems are not in the public domain.

This section will summarize the activities of several of the leading MBCOs.[xvii]

- **Human Affairs International** (a subsidiary of Magellan Health Services) uses the OQ-45, a forty-five-item questionnaire developed by researchers at Brigham Young University. This tool is used by about 2000 of the company's 14,000-member provider network.

- **Green Spring** (a subsidiary of Magellan Health Services) uses the Basis-32 and the SCL-90R, two symptom checklists developed at John Hopkins University. These instruments have been employed by Green Spring in studies and projects with a small subset of network providers involving not more that 300 to 400 patients, and sometimes as few as 50 to 60 patients.

- **ValueOptions, t**he country's second-largest managed behavioral healthcare company, announced recently that it has established the Center for Behavioral Health Outcomes at the University of Virginia, marking the first time a behavioral health organization has joined forces with a national university to examine outcomes data extensively and make its findings public. With ValueOptions having public-sector business in more than a dozen states, the company's data can give the field a much clearer picture of treatment for Medicaid patients. The company manages behavioral healthcare for more than 20 million covered lives, of which about 7 million are in public-sector program. The center is currently in full operation. The goals of the Center will be:

  - To better understand the causes of behavioral disorders, especially for children and adolescents;

  - To develop best-practice models, with the aid of partnerships between managed care; and

  - To improve the interaction between physical health and behavioral health.

  The goal is to have the center look objectively at how managed behavioral health care works, how effective it can be and where the flaws are. While ValueOptions will influence the center's efforts in terms of the projects it selects, it will have no influence on the center's findings, which are to be published in scientific journals.

- **Managed Health Network** uses an instrument measuring symptom severity, functional impairment, and overall quality of life, and is completed by both patient and provider at the beginning of treatment and at the end. The instrument includes six domains of functioning rated on a 9-point scale, as well as an 11-point problem resolution scale. The degree of use of the instruments in the MHN network is not known.

- **MCC Companies** has developed a combined mental health and substance abuse measurement that can be completed by both the patient and provider as part of an initial 50-minute assessment. When the forms are complete, the provider faxes them back to MCC, where the information is instantly read into a database using optical character recognition technology. The data are then used to assemble a patient profile report that can be faxed again to the provider with three essential components: a case history summary, a score for severity of symptoms, and an outcome prediction that is derived from a growing database of cases. Follow-up questionnaires are completed after six months and twelve months. MCC's outcome data have begun to yield important information about how the structure of a benefit may affect the course of treatment. One important finding has been an association between higher co-payments and a tendency of patients to disengage from treatment. MCC notes that when the co-payment is greater than twenty dollars, the patient is one-and-one half times less likely to engage in treatment. MCC also claims that the system helps them determine how to "titrate" the intensity of treatment in outpatient substance abuse treatment. When comparisons are made of programs that offer very intensive, multiple-session treatment in a short period, against those that offer less intensive treatment extended over a longer period of time, the latter is said to produce significantly better outcomes. MCC is going further with their outcome monitoring system.[xviii] The company is offering performance guarantees about patient outcomes to its commercial employer and HMO purchasers. MCC is guaranteeing, for example, that six months after employees start substance abuse treatment, the employer will see specific improvements. These would include decreased emergency room usage, reduced medical/surgical hospital admission rates, and improvements in depression. MCC puts a portion of premium payments at risk for the performance guarantees. If MCC meets its guarantees, it keeps that portion; if not, it refunds it to the purchaser.

  A large East Coast defense contractor that has contracted with MCC over the last few years negotiated and implemented performance guarantees for calendar year 1997. (The company represents' about 400,000 covered lives, with 20,000-24,000 employees presenting for behavioral health services annually.) At the end of the year, MCC documented meeting its performance standards, thus retaining the portion of its premium that had been at risk. The two parties were following the same procedure for 1998. Perhaps most fundamental to MCC's ability to make such guarantees is its Continuing Quality Improvement System (CQIS), developed in partnership with the University of Minnesota's Institute of Health Services Research. CQIS has allowed MCC to collect demographic and clinical outcomes data on its substance abuse population since 1994 and on its mental health patients since July 1996. When patients enter the MCC network seeking treatment, they and their providers complete a baseline CQIS form. This data gathering occurs as a standard part of the intake and diagnostic assessment process. After six months of treatment, MCC staff [xix] conducts follow-up telephone surveys for

clients with substance abuse problems, mood disorders, and anxiety disorders. Another follow-up occurs at 12 months after baseline. The CQIS instrument relies heavily at both baseline and follow-ups on patient self-report and self-assessment, which many feel is unreliable, especially if it stands alone. Particularly weak is the instrument's reliance on patients' recall of the number of days absent from work in a given month or the number of visits to the emergency room or days hospitalized. An important area for improvement would be to collect objective archival data to document more accurately any medical cost offsets and enhanced job productivity. MCC staff have conducted validity and reliability testing on some aspects of patient self-reporting, such as matching it with urine tests and/or corroboration by significant others, with patient permission. The company says that it has found a high correlation between self-reported results and reports by significant others. Another methodological weakness is that MCC measures outcomes by looking at only two or three isolated '"snapshots" in time rather than a continuum or trend of improvement. One advantage to the CQIS instrument is that since it measures patient-specific improvement, it minimizes the need to adjust for case-mix severity. Even the sickest patients are likely to show improvement by six months after intake. MCC does not guarantee a specific quantitative outcome for a group of covered lives, however. MCC's work has significant implications for outcome trends in the industry as a whole. First, the MCC experience suggests that the precedent of agreeing on outcome standards and putting premium dollars at risk is more important than the specifics, and that employers and behavioral managed care companies can agree on general parameters. It further suggests that half a loaf is better than no loaf. That is, it is better to have an imperfect methodology that takes a first step in measuring what employers really want than having a more refined methodology on process measures that does not tell purchasers whether their dollars are buying clinical improvement. An employer or HMO also could conduct much more focused negotiations with behavioral health vendors around quality and outcomes, as well as pricing. On the other hand, purchasers might choose to put their behavioral health business out for bid, where all applicants would have to offer uniform performance guarantees or exceed established baselines. This trend may begin to change purchasers' expectations about the scope and level of data detail that vendors can provide on a regular basis. This would require more sophisticated infrastructure capabilities among both MCOs and providers. Finally, this experience with outcomes guarantees should sound a cautionary note to the industry: there must be ways to improve comparability of databases if meaningful outcomes regarding medical cost offsets or job productivity are to be developed. So far, MCC's joint ventures with employers have failed to establish integrated systems that link data of health services used, work productivity, medical cost offsets, and benefit plan costs, largely because the data and their formats could not be made comparable - even under a single employer's auspices.

Typical MCC Behavioral Care assurances include:

At six months after the start of substance abuse treatment, MCC guarantees:

- **Medical and work cost offsets** such as decreased emergency room utilization rates, reduced medical/surgical hospital admission rates, decreased work absenteeism rates, and lowered rates of relationship problems with co-workers.

- **Quality of life effects** such as improved patient reported depression rates, improved marital/partnership/family relationships, reduced/eliminated legal problems, decreased rates of financial problems and increased involvement in community and recreational activities

- **Integra** uses the "Compass" instrument that contains several questionnaires ranging in length from 30 to 130 items that measure patient status across three broad domains: symptoms, well-being, and functioning. These domains correspond to a system developed by Ken Howard, Ph.D. at Northwestern University, that purport to demonstrate a dose-response relationship between treatment and improvement in an one of the three categories. The Compass tool is used concurrently with treatment, not just at the beginning and end. As treatment progresses, rates of change, as measured against baseline, are compared with a dose-response curve generated from the company's database of more than 50,000 cases. Plotting the patient's progress on that curve allows the case manager and provider to determine together whether more intensive treatment is indicated, or whether the benefits of continued treatment are reaching the stage of diminishing returns. Part of this process includes computer-based technology for rapid transfer of information between provider and managed care company. The process is as follows:

  - Providers enter outcome data they collect from patients, using software that links the provider to a network database;

  - The information is then electronically transmitted to the network; where it is translated into a treatment algorithm; and

  - This information is fed back to the provider who can use it to make effective treatment decisions.

There is much activity in measuring and monitoring the outcome of substance abuse services. The development of an outcome-based purchasing system for substance abuse treatment should build upon these efforts, even to the extent of using already existing data for building a database. This may compromise methodological purity, but it has

practical advantage of providing immediate access to data, as well as reducing potential burden on providers.

VII. PERFORMANCE MEASURES

Performance measures are indicators used to assess the delivery of care by a statewide system, health plan, or provider as that care conforms to practice guidelines, medical review criteria, or standards of quality. Adherence to performance standards is expected to lead to desirable outcomes. In addition, the application of the same performance standard to different systems allows a standard metric for comparing the systems. Using the same performance measure for the same system in two different periods enables system changes to be gauged. For example, a performance indicator for access might be the percentage of enrollees covered under a managed behavioral health care delivery system who have a mental health or substance abuse claim for a face-to-face visit and/or hospital stay within a one-year period. Comparing this percentage in two different time periods can indicate change in a system. Correlating such a measure with access over an even longer period time might give some indication as to whether the measure is a reliable indicator of system dysfunction.

Recently, performance measurement and performance indicators have garnered much national attention. Several different systems have been proposed. Part of the impetus for the development of these systems comes from a report titled ***Assessment of Performance Measures for Public Health, Substance Abuse, and Mental Health*** (Perrin, E.B. & Koshel, J.J., 1997). This work presents the findings of the Panel on Performance Measures and Data for Public Health Performance Partnership Grants; the Committee on National Statistics; the Commission on Behavioral and Social Sciences and Education of the National Research Council. The panel was convened by the U.S. Department of Health and Human Services to study existing performance measurements, and recommend measures for monitoring Performance Partnership Grants. The panel considered performance measures in 10 areas, including mental health and substance

abuse. Guidelines used for evaluating the 3,200 measures submitted for consideration included the following:

- Is the measure meaningful and understandable?
- Are there data available to support the measure?
- Is the measure valid, reliable, and responsive?

The following section reviews some of the major performance measures being developed.

A. The National Association of State Alcohol and Drug Abuse Directors (NASADAD)

NASADAD, in conjunction with SAMHSA, has been working on a set of performance indicators that are defined by three dimensions:

- **Domain**: A general area to be measured, such as access or quality.
- **Indicator**: A variable used to point to program performance within a certain domain. For example, an indicator in substance abuse treatment might be "frequency of criminal activity".
- **Measure**: The specific method (such as an instrument or data element) for measuring or quantifying an indicator to determine whether performance goals are being met. The criminal-activity indicator might be measured by counting the number of arrests.

Table 13 presents a summary of NASADAD's proposed indicators.

Table 13
National Association of State Alcohol and Drug Abuse Directors (NASADAD) Proposed Performance Indicators

DOMAIN I? EFFECTIVENESS

A. Indicator Area- Health Status
Suggested bases for measurement:

1.Physical Health
- ? Emergency room visits
- ? Hospital admissions
- ? Hospitalization days
- ? Addiction Severity Index health status (or equivalent)
- ? Medical outpatient visits
- ? Medicaid utilization

2. Mental Health
- ? Emergency room psychiatric visits
- ? Addiction Severity Index psychosocial health status or equivalent

- Outpatient psychiatric visits
- Psychiatric hospitalizations
- Psychiatric hospitalization/days
- Medicaid Utilization

B. Indicator Area- Economic Self-Sufficiency
Suggested bases for measurement:

- Legal income
- Employment status
- Use of public assistance
- School (youth only)
- Literacy (adults only)

C. Indicator Area- Social Supports and Functioning
Suggested bases for measurement:

- Living arrangements
- Arrests/Juvenile justice involvement
- Self reported crime-days
- Incarceration
- Legal status
- Addiction Severity Index social support indicators
- Child welfare contacts

D. Indicator Area- AOD Use
Suggested bases for measurement:

- Treatment Episode Data Set (TEDS): Alcohol and Other Drug Use Data Elements
- Methadone Treatment Quality Assurance System
- Addiction Severity Index Alcohol and Other Drug Use data elements, or equivalent

DOMAIN II- EFFICIENCY

A. Indicator Area- Access
Suggested bases for measurement:

- Need
- Utilization
- Waiting time

B. Indicator Area -Treatment Retention
Suggested bases for measurement:

- Completion rates
- Length of stay
- Administrative termination rates

C. Indicator Areas- Costs of Services
Suggested bases for measurement:

- Unit costs
- Episode costs

D. Indicator Area- Appropriateness
Suggested bases for measurement:

- To be developed

DOMAIN III- STRUCTURE

A. Indicator Area- Service capacity/description
Suggested bases for measurement:

- Uniform facility Data Set (UFDS) data elements

B. Indicator Area- Data capabilities
Suggested bases for measurements:

- ? To be developed

C. Indicator Area- Workforce competence
Suggested bases for measurements:
- ? To be developed

D. Indicator Area- Demographics
Suggested bases for measurements:
- ? Treatment Episode Data Set (TEDS) data elements

E. Indicator Area- Client Characteristics
Suggested bases for measurements:
- ? Treatment Episode Data Set (TEDS) data elements

These proposed NASADAD indicators are being revised.

B. The Mental Health Statistics Improvement Program (MHSIP)

SAMHSA's Center for Mental Health Services has also developed a set of performance indicators that are designed to be a "report card" for measuring the performance of mental health programs. The MHSIP is similar to the NASADAD effort in that it consists also of domains, indicators, and measures. To these three dimensions, the MHSIP has added a fourth, concerns. For example, under the broader domain of access, one concern is the convenience with which mental health consumers are able to enter services. The average length of time from a request for services to the first face-to-face meeting with a mental health professional is one indicator of the relative ease with which consumers can access services. The total time between a request for services and the first face-to-face contact with a mental health professional for new admissions during the year, divided by the total number of new admissions, is one way to measure this indicator. Table 14 contains a sample of MHSIP performance measures.

Table 14
Mental Health Statistics Improvement Programs (MHSIP) Performance Measures

Concerns and Indicators Related to Access
Access refers to the degree to which mental health services are quickly and readily obtainable. Access depends on the responsiveness of the system to individual and cultural needs and the availability of a wide array of relevant services. Priority concerns related to access include the following:
- ? Quick and convenient entry into services;
- ? A full range of service options;
- ? Cultural and linguistic access; and
- ? Financial access.

The indicators presented below are a representative set:

? The average length of time from request for services to the first face-to-face meeting with a mental health professional;
? The average resources expended on mental health services;
? The proportion of resources expended on mental health services that are consumer-run;
? The proportion of resources expended on mental health services provided in a natural setting (home, school, and work);
? The percentage of people served in a year who had only one mental health contact; and
? The percentage of peoples receiving Supplemental Security Income or Social Security Disability Insurance benefits.

Concerns and Indicators Related to Appropriateness

Measuring the appropriateness of mental health services is difficult. There is no widely accepted equation that automatically links assessments with a standardized treatment plan. Appropriate services are those that are individualized to address a consumer's strengths and weaknesses, cultural context, service preferences, and recovery goals. Priority concerns related to appropriateness include the following:

- Voluntary participation in services;
- Services that promote recovery;
- Services that maximize continuity of care;
- Consumer involvement in policy development, planning, and quality assurance activities;
- Adequate information to make informed choices; and
- Application of best-practice guidelines.

The indicators presented below are a representative set.

- The percentage of consumers who actively participate in decisions concerning their treatment;
- The proportion of resources expended on services that promote recovery;
- The percentage of people discharged from inpatient services who receive ambulatory services within 7 days;

- The percentage of people discharged from emergency care who receive ambulatory services within 3 days; and
- The percentage of service recipients who had a change in principal mental health care provider during the year or term of treatment.
- The percentage of consumers who receive adequate information to make informed choices; and
- The percentage of service recipients whose treatment follows accepted best-practice guidelines.

Concerns and Indicators Related to Outcomes

Outcomes are reflected by the extent to which services provided to individuals with emotional and

behavioral disorders have a positive or negative effect on their well-being, life circumstances, and capacity for self-management and recovery. Priority concerns related to outcomes include the following:

- Increased access to general health care;
- Minimal negative outcomes from treatment;
- Reduced psychological distress;
- Increased sense of person-hood;
- Reduced impairment from substance abuse;
- Increase in productive activity;
- Capacity for independent community living;
- Increase in independent functioning;
- Reduced involvement in the criminal justice system;
- Participation in self-help activities;
- Minimal recurrence of problems;
- Positive changes (in areas for which treatment is sought); and
- Increased natural supports and social integration.

The indicators presented below are a representative set.

- The percentage of people with mental illnesses who are connected to primary care;
- The percentage of consumers who experience a decreased level of psychological distress;
- The percentage of consumers who experience an increased sense of self-respect and dignity;
- The average change in days of work lost;
- The percentage of children with serious emotional disturbances placed outside the home for at least one month during the year;
- The percentage of consumers who experience an increased level of functioning;
- The percentage of consumers who are involved in self-help activities;
- The percentage of inpatient re-admissions that occur within 30 days of discharge; and
- The percentage of consumers who experience increased activities with family, Friends, or social groups.

C. The American Managed Behavioral Health Care Association (AMBHA)

AMBHA, the trade association for the major managed behavioral managed care companies, has also issued a set of performance measures titled ***Performance Measures for Managed Behavioral Healthcare Programs*** (PERMS). Two editions of this document have been issued. Table 15 contains the performance-based measures from PERMS 1.0.

Table 15.
American Managed Behavioral Health Care Association (AMBHA)
Performance Measures

AMBHA's performance measures focus on three main characteristics:

- Access to care;
- Consumer satisfaction; and
- Quality of care.

Performance-based measures for access to care are these:

- Overall penetration rate (percentage of enrolled population who receive services);
- Penetration rate by age, diagnostic category, treatment setting, and clinician type;
- Utilization rates of outpatient, inpatient, and intensive alternatives to inpatient care;
- Cost data for persons with severe and persistent mental illness; and
- Telephone issues (call abandonment rate, on-hold time, and average speed of answer time).

Performance-based measures incorporated for consumer satisfaction are these:

- Access: satisfaction with the time to the first appointment;
- Intake: satisfaction with the intake clinician/worker;
- Clinical care: satisfaction with the therapist;
- Outcome: consumer-based assessment of outcome; and
- Global satisfaction: rating of the overall satisfaction.

Performance-based measures incorporated for quality of care are these:

- Effectiveness: ambulatory follow-up after hospitalization for major affective disorder;
- Effectiveness: treatment failure for substance abuse;
- Efficiency: continuity of care;
- Appropriateness: availability of medication management for schizophrenia;
- Appropriateness: family visits for children; and
- Appropriateness: utilization of resources for adjustment disorders.

D. The American College of Mental Health Administration (ACMHA)

ACMHA has convened two national meetings to develop consensus on core values that should drive performance and outcome measurement. ACMHA has been particularly focused on certain issues, including:

- **Consumer involvement**: The concept that consumers must be encouraged to participate in the performance measurement process;
- **Cultural competence**: Performance measures must fit culturally diverse groups;
- **Purchaser involvement**: The cost of performance measures should be assessed;
- **Clinical issues**: Addressing the real quality of clinical service delivery; and
- **Accreditation issues**: Drawing a distinction between indicators that represent true performance measures and those that should be considered accreditation standards.

ACMHA has compared the performance indicators of the National Committee on Quality Assurance (NCQA) and ACMHA, as well as the proposed indicators of the National Association of State Mental Health Program Directors (NASMHPD), NASADAD, and the American Public Human Services Association. A copy appears in Appendix 4.

E. Joint Commission on Accreditation of Healthcare Organizations (JCAHO)

In January 1997, JCAHO announced it new performance measurement initiative, titled ORYX. According to JCAHO, ORYX provides a more objective, data-driven accreditation process that will integrate outcomes and other performance measures. ORYX is designed to provide scientifically valid, data-driven mechanisms that generate a continuous stream of performance information enabling health care organizations to:

- Have continuous access to objective data to support their claims of quality;
- Receive early warning of problems or conditions that could lead to serious errors;
- Verify the effectiveness of corrective actions;
- Identify areas of excellence with the organization; and
- Compare their performance with that of peer organizations using the same measures within the same performance measurement system.

JCAHO's vision of a data-driven, more continuous accreditation process includes the eventual expectation to receive performance measurement data from accredited organizations for enough measures to paint a picture of the organization's performance as a whole. The system will be phased-in. Managed behavioral health care organizations were required to select at least five measures from the network measurement template and report these selections by December 31, 1998. Five additional behavioral health care-specific measures are required by the end of 1999, and organizations are to be prepared to share data, analytic conclusions, and actions taken with surveyors during on-site visits beginning in 2000. Behavioral health organizations that provide 24-hour care are required by March 1, 1999, to select a performance measurement system and two clinical measures, patient perception of care or health status, or enough measures to address 20 percent of the patient population, whichever is less. The subsequent years will require increasing numbers and percentages of populations. All other behavioral health care organizations are required to participate in a JCAHO "Request for Indicators" project that will request specific information about measures currently being used by the organizations to meet performance improvement standards. The responses will be used to create a template of measures from which these types of behavioral health care organizations would then select measures. They are also required to select at least two measures from the resulting template and inform JCAHO of its selections by June 30, 1999, and begin collecting data for the selected template measures in the third quarter of 1999. They are also required to share measurement and improvement activities with surveyors during regular on-site surveys.

F. The QISMC Initiative[xx]

The Quality Improvement System for Managed Care (QISMC) is a Health Care Financing Administration HCFA initiative to strengthen managed care organizations' efforts to protect and improve the health and satisfaction of Medicare and Medicaid enrollees. The purpose and first products of this initiative are to develop an interim set of health care quality improvement standards and guidelines for Medicare and Medicaid contracting managed care organizations. The QISMC standards and guidelines are tools

to be used by HCFA and states in implementing the quality assurance provisions of the Balanced Budget Act of 1997. Although a timely and "best practice" approach for implementing the quality assurance provisions of the BBA, the development of QISMC predates the legislation. QISMC was begun in 1996 with several major goals:

- To clarify the responsibilities of HCFA and the states in promoting quality as value-based purchasers of services for vulnerable populations.
- To promote opportunities for partnership among HCFA and the States and other public and private entities involved in quality improvement efforts.
- To develop a coordinated Medicare and Medicaid quality oversight system that would reduce duplicating or conflicting efforts, and send a uniform message on quality to organizations and consumers.
- To make the most effective use of available quality measurement and improvement tools, while allowing sufficient flexibility to incorporate new developments in the rapidly advancing state of the art.

QISMC built upon a variety of HCFA and state efforts to promote the assessment and improvement of quality in managed care organizations. Those efforts include HCFA's Quality Assurance Reform Initiative, which developed and tested standards for states to use in monitoring and improving quality in Medicaid managed care organizations, with a particular emphasis on the organizations' own internal quality improvement efforts; and initiatives to improve accountability by requiring uniform collection and reporting of data, such as the Health Plan Employer Data and Information Set (HEDIS).

The first product of the QISMC initiative is a set of interim quality assurance standards. These standards direct a managed care organization to:

- Operate an internal program of quality assessment and performance improvement that achieves demonstrable improvements in enrollee health, functional status, and satisfaction across a broad spectrum of care and services.

- Collect and report data reflecting its performance on standardized measures of health care quality, and meet such performance levels on these measures as may be established under its contract with HCFA or the State.

- Demonstrate compliance with basic requirements for administrative structures and operations that promote quality of care and beneficiary protection.

The standards are applicable to all services provided by managed care organizations to Medicare or Medicaid enrollees, including medical care, mental health and substance abuse services, and any additional services (such as dental care) that may be included in a Medicaid contract or furnished to Medicare enrollees as a mandatory or optional supplemental benefit. Although the standards are not disease specific, they do require organizations to evaluate and improve care for all enrollees, including those with special needs.

The proliferation of these performance measurement/indicator systems indicates their importance. Outcome measurement is usually an indicator in all of these systems, which can be helpful in requiring agencies to attend to outcome measurement. Complying with these systems can be burdensome for the individual provider if the requirements of the various systems are not coordinated.

VII. MANAGED CARE

Managed care, broadly defined, is a comprehensive approach to health care delivery that encompasses planning and coordination of care, monitoring of care quality, and cost control. Methods for managing care may include the development and implementation of criteria for level of care assignments and medical necessity determinations. Other methods for managing care may include use of standardized pre-treatment assessment and treatment planning by practice pattern analysis and provider profiling, and outcome management. Managed care encourages development of and referral to a complete continuum of care, and use of prior authorization and concurrent review for ongoing care management. Finally, managed care includes new systems of financing health care

delivery, such as placing providers at risk for the cost of service delivery. Here, being at-risk means being financially responsible for the cost of the delivery of services.

Managed care organizations (MCOs) are organized systems of health care that integrate paying for health services with the provision of health care services. Because MCOs operate in accordance with good business principles and expectations, their role is largely to control spending levels within clearly established financial parameters. MCOs typically develop and implement criteria to determine assignment of enrollees to the appropriate level of care based on assessed medical and clinical need. MCOs include a wide variety of for-profit and nonprofit organizations, including: health maintenance organizations (HMOs); prepaid health plans, and other health care systems that provide a full range of health care services; organizations that specialize in the management of substance abuse and mental health services (usually called managed behavioral health care organizations, or MBHOs); government entities; and organized networks of health care providers.

Managed care has grown phenomenally over the past decade. In the early 1990s, there was rapid growth in employer-sponsored plans. Seventy eight million were enrolled in 1992; in 1998, 156.6 million people were enrolled. In the mid- to late- 1990s, there was a corresponding rapid growth in public (especially Medicaid) plans. In March 1996, there was 27 state or partial state managed care plans. In February 1998, there were 40 such plans. In July 1998, the number of Medicaid managed care plans increased to 88.

As of the first quarter of 1998, enrollment with the largest MBHOs was as follows:

- Magellan- 58.7 million
- Value/Options- 27.1 million
- Mental Health Networks- 8.2 million
- United Behavioral Health- 8.1 million
- MCC/Cigna- 6.5 million
- First Mental Health- 6.0 million

Managed care uses various techniques to control the costs of services, improve access to services, and improve the quality of service delivery[xxi]. These techniques include:

- **Utilization Management** is a set of techniques used by or on behalf of purchasers of health benefits to manage health care costs by influencing decisions about patient care made by providers, payers, and patients themselves. Utilization management usually involves the application of standardized criteria to determine if services planned for a patient are consistent with the patient's needs. Utilization management often includes continuing stay review.

- **Provider panels** involve permitting enrollees to have access only to services provided by a pre-selected group of providers. Generally, these providers are screened to ensure that they have the necessary qualification and/or skills to perform the services in question, also known as credentialing. In addition, the providers usually have agreed to give favorable pricing to the purchaser.

- **Access standards** are those that providers must meet to ensure appropriate access to care. Such standards include requirements that in emergency or urgent situations patients must be seen by their provider within a certain time limit.

- **Risk-shifting payment arrangements** are established to control costs. These are contractual payment arrangements, the goal of which is to shift the burden of paying for services to the provider. That is, these mechanisms require the provider to pay for all services rendered to an enrollee, after the provider has been paid a fixed amount for services to all eligible enrollees (capitation). Other methods for shifting risk include global budgets or case rates. Global budgets are a method of financing managed care based on fixed, historically determined overall budget to serve the eligible population, often used when MCO's are unable to predict or reliably determine the number of eligible individuals or the likely number of enrollees. Global budgets are often used to purchase a fixed amount of treatment capacity from providers to control the risk of overspending. A case rate is a fixed, per patient rate for delivery of specific procedures or services to specified types of consumers, such as persons with serious and persistent mental illness, which are often time-limited (e.g., per episode, per year).

- **Case management or targeted case management** involves the coordination and monitoring of an individual patient's treatment by a third party. The goals of case management are to ensure that a patient receives and makes the best use of needed services and adheres to the treatment plan, so the he or she

maintains a stable life in the community and avoids costly care, such as inpatient treatment.

- **Medical Necessity** is a concept used to ensure that managed care plans only provide services that are deemed to be medically necessary. Such medically necessary services are: appropriate and necessary for the symptoms, diagnosis, or treatment of sickness or injury; provided for the diagnosis or direct care or treatment of sickness or injury; within the standards of good practice; not primarily for the convenience of the plan member of provider; and the most appropriate level of care that can be safely provided.

- **Practice Guidelines** are systematically developed recommendations for the most appropriate diagnostic and treatment approaches for medical conditions, including substance abuse, developed to standardize care and to facilitate decisions about appropriate care; generally, guidelines are based on scientific evidence and expert opinion. CSAT has issued a series of ***Treatment Improvement Protocols,*** developed by consensus panels of substance abuse experts to serve as practice guidelines. They are available at www.samhsa.gov.

It is clear from material presented elsewhere in this document that managed care has had a tremendous impact on the delivery and quantity of substance abuse services over the past decade. With the spread of managed care into the public sector, however, there has not been the rush to "privatization" that was once predicted (or feared). In fact,[xxii] fifty-seven percent of 53-state substance abuse and/or mental health carve-out plans are managed by public agencies or through public-private partnerships. Conversely, 76 percent of integrated managed care programs solely contract with private-sector organizations for behavioral health services.

Thus managed care is not simply a private sector phenomenon, but rather a series of techniques that are affecting both private and public services, and used both by public and private payers.

IX. CONCLUSIONS AND RECOMMENDATIONS

This document has presented a wealth of information about the substance abuse treatment system. It was intended to give the reader an up-to-date review of the magnitude of the substance abuse problem; its societal impact; the dimensions of the substance abuse

treatment system; how its financed; the outcome of substance abuse treatment and the systems used to measure that outcome; and other methods to measure its performance. The purpose of this final section is to draw conclusions from the information provided and to discuss the implications of those conclusions for a system that is designed to purchase outcome on behalf of recipients of service.

A. The Purchase of Outcome

The Committee on Benefits has as its goal the design of a benefit system that would make available to payers a new way to secure substance abuse services on behalf of their employees, beneficiaries, enrollees, members, etc. This new method would be to offer purchasers a system that would guarantee a certain outcome on behalf of a group of eligible persons, rather than to simply provide access to a menu of eligible or covered services, also known as benefits. The theory is that with the accumulation of a large amount of rigorously obtained, uniform outcome data, it will be possible to predict the outcome of a given type of treatment for a given cohort (group) of people. Thus, the sale and purchase of outcome will become feasible. Here is an example of how such a system might work:

> An employer with 1000 employees wants to provide substance abuse coverage for her employees. The employer is quite familiar with the usual insurance package of benefits, that is, that the coverage will provide access to up to thirty days of inpatient treatment and up to 30 outpatient visits. When employees access services covered under the benefit plan, the employees (and the employer) have no guarantee that the services delivered will result in any particular outcome. Even in managed care plans that make an effort to match patient/client need to level of care, there is no necessary relationship between the total of number of inpatient days or outpatient visits used and outcome. In contrast, a model outcome purchasing system would provide the employer a benefit package that would guarantee a given outcome rate for all members of the group using benefits. For example, the employer would be offered a range of abstinence rates for a range of prices. Thus, for a given premium, the employer could purchase a 60 percent abstinence rate for her employees, or a 70 percent rate for a higher premium. The abstinence rate would be measured after a

given period, for example, a year after treatment completion. The actual services eligible for reimbursement would not be specified in the benefit structure. This model would be based upon the calculation of abstinence (or other outcome) rates from a large database of outcome measures.

This rather simplistic example highlights the differences between traditional benefit packages and the proposed purchase of outcome model. In order to develop this model, it is imperative to understand the context in which this new model is being proposed. As noted in the Introduction of this document, the complexities of the substance abuse treatment system must be understood to adequately understand the challenges and opportunities it provides for the design and implementation of an outcome-based substance abuse services purchasing system.

The next section will discuss the implications of various aspects of the substance abuse treatment system for outcome-based purchasing of substance abuse services. These implications will assist the design work by identifying important issues that will have an impact on the design of this innovative purchasing system.

B. Policy Implications And Considerations

- **Diversity and Cultural Competence.** The majority of current drug users are white, yet the rate of use is highest among blacks. Men have nearly twice the rate of use as women. The rates of heavy drinking are similar among white, blacks, and Hispanics. Men are nearly five times as likely to be heavy drinkers as are women. People living in metropolitan areas are more likely to be drug users. These findings suggest that the outcome data upon which an outcome-based purchasing system is built must be sufficiently comprehensive to reflect unique properties of many demographic groupings. That is, when members of a demographic cohort have differential treatment outcome characteristics, these must be built into the outcome-based purchasing model. Yet, because the number of non-white male substance abusers can be relatively small, the accumulation of reliable and valid outcome data about these other demographic groups may take some time. Initially, then, the outcome-based purchasing system may be best suited for white males from whom a larger pool of reliable and valid outcome data would be more readily available. Purchasers will be buying an outcome-based system for a diverse demographic group. For the system to be successful, it must reflect the

unique outcome characteristics of all sub-groups within the covered population. For example, the Medicaid-covered population is primarily female. There would be little point in attempting to sell to a state Medicaid agency a model built on preponderantly male-based outcome data. To do so would risk mismatching available outcome data and the needs of the entire covered population, a clinically and financially risky situation.

- **Keeping what works currently.** The estimated costs to society of substance abuse are based, in part, on calculations of the costs to collateral systems of dealing with substance abusers. Such collateral systems include general health care, welfare, criminal justice, etc. It is important to remember that no matter how well designed the outcome-based purchasing system might eventually be, substance abusers affect everyone's lives in many different ways. A good purchasing system will not obviate the need for all of the other systems currently in place that help society deal with substance abuse and the substance abuser. Thus, employee assistance, criminal justice, welfare, and medical systems will continue to be needed to help society cope with substance use. To the extent that an outcome-based purchasing system can improve treatment outcomes, some collateral costs may be reduced. Nevertheless, it is important to remember that most substance abusers do not want nor seek treatment. It would be perilous to oversell the potential general societal benefits of an outcome-based purchasing system.

- **The complexity and size of the substance abuse treatment system.** The substance abuse service system treats a little less than a million persons daily in approximately 9600 substance abuse programs. The vast majority of clients on any given day are receiving outpatient services. The services are funded by multiple sources of revenue, including: commercial insurance, Substance Abuse Prevention and Treatment Block Grant (SAPT) funds; Medicaid; Medicare; state general revenue; local tax revenue; donations; and private pay. Most of these revenue sources require programs to follow detailed regulations or requirements as a condition of receiving funds. Further, external-accrediting bodies that regulate, but do not fund, services place additional requirements on providers concerning medical records, staff qualifications, outcome measures, etc. Any proposed outcome-based purchasing system should ensure that the outcome measurement system is consistent with the requirements of every funding/regulating body. The mix of funding sources will vary from program to program. The emerging outcome-based purchasing system requires that measures be taken in order to establish outcome rates. It also requires continuous outcome monitoring in order to refine the system, and to demonstrate to the purchaser the outcome rates achieved. One strategy for implementing a uniform outcome monitoring system would be to enlist the participation of individual programs, program-by-program. While time intensive, this strategy would help to ensure that all regulatory requirements are being met. On the other hand, convincing a major funding source to adopt a uniform outcome monitoring system would have the practical advantage of

affecting multiple programs at once. It would not, however, ensure compliance with all of the regulatory requirements that apply to each program funded by the single major funding source. Further, given the sometimes-limited revenue base of many community-based providers, the implementation of an outcome monitoring system may require additional human and financial resources. Finally, implementation of an outcome monitoring system must meet the needs of each program. For example, some programs might implement it for all admissions and some would want to implement it for only for those revenue streams requiring it. In any case, the implementation process must be sensitive to the unique qualities of each program if the outcome system is to be accepted and used. This too will be a labor-intensive undertaking.

- **Client populations by funding source.** Each of the substance abuse treatment revenue sources tends to pay for services for groups with different characteristics. Commercial insurance tends to pay for services for individuals, who, by virtue of their employment, may have less severe substance abuse disorders. Public funding sources, especially the SAPT and Medicaid, are payers of last resort. They often purchase services on behalf of less socially integrated substance users who frequently have more severe substance disorders. A different outcome "warrantee" should be made to the public purchaser in contrast to the commercial insurance purchaser. Thus, outcome data should be analyzed not only according to demographic characteristics, but also by funding source if the emerging outcome-based purchasing system is to be financially viable.

- **The multiplicity of outcome measuring/monitoring systems.** Substance abuse treatment outcome is one of the most frequently researched topics in the substance abuse literature. The majority of these studies are based on a project-by-project effort by individual researchers. Most are not related to ongoing outcome monitoring systems. Many of the federally funded outcome studies rely on a one-time measurement effort. In addition, they are usually large studies affecting many providers nationwide. It is unlikely that the National Institute on Alcohol Abuse and Alcoholism, the National Institute on Drug Abuse, and the Center for Substance Abuse Treatment will stop their efforts to better understand the outcomes of substance abuse treatment. Further the major managed behavioral health organizations have implemented some form of outcome monitoring to provide their customers with information about the value of substance abuse and mental health treatment. In fact, MCC Companies has already implemented a form of outcome-based treatment purchasing. Any effort to introduce a new outcome-based purchasing system must appreciate the plethora of outcome measurement systems in use. In fact, a new system may have to rely on already existing sources of information rather than introducing what will seem to many providers as a duplicative effort. This is less than ideal because each study or system uses measures that vary, sometimes in significant ways, from each other, and from what might be desirable in the new system. It can also introduce error into the outcome

measurement effort. Many of the monitoring systems and studies measure a wide variety of outcome, including:

- Use of medical services;
- Crime;
- Return to employment and unemployment costs;
- Welfare costs;
- Absenteeism;
- Substance use; and
- Family disruption.

In order to minimize the burden of a new outcome-based purchasing system, all of these measures must be incorporated. Agencies that struggle with inadequate resources cannot, and should not, be expected to use new measures in addition to those they already are. Outcome measures should also be:

- Aimed at specific objectives and be results oriented;
- Meaningful and understandable;
- Supported by data;
- Feasible and achievable;
- Rely on currently available data;
- Sensitive to the populations being served;
- Supported or accepted by providers;
- Relevant to consumers;
- Value based. Reliable and valid;
- Cost-and burden-conscious; and
- Current.

Finally, because substance abuse services, particularly in the public health system, are often provided to one client through a continuum of settings in various facilities, the outcome system should be sophisticated enough to measure the outcome of an episode of care. That is, for example, when a client is detoxified in a hospital, then receives residential services in a community-based setting, and receives services at an outpatient clinic, measuring outcome only at the one of the sites may give that site an unfair advantage or "boost" from the other treatment received by that patient. Given today's state-of-the-art, this may be a very tall order.

- **Outcome measures are only one measure of the quality of treatment system output.** To some, a system designed to purchase outcome might ignore many other characteristics of substance abuse treatment services that are valued. The various performance measurement systems presented in this document take a broad view of all of the characteristics that are considered important by experts measuring the output of the substance abuse treatment system. In the design of a system to purchase outcome, it is important that many other performance indicators be incorporated. In other words, outcome measures may be most important (at least in a system that purchases

outcome), but many other performance measures should also be considered. It would be a dubious proposition to have outstanding outcome in a program that has no medical records, is discriminatory, has a two year waiting list, and is located in a non-licensed facility. An outcomes-based purchasing system should contain a comprehensive set of provider or system performance measures, including outcome measures.

- **Managed care has a track record.** Any new system of purchasing services should not ignore the valuable contributions of managed care systems in improving the quality of, access to, and affordability of health care. The proposed outcome-based purchasing system should include managed care-like arrangements such as:

  - Contracting for network services that take into account concerns for provider capacity; composition and structure of the network; selection and credentialing of providers; provider types; provider payment requirements and systems; provider grievance and appeal guidelines; and provisions for the monitoring of provider services.

  - Requirements for information management, including the management of eligibility information; staff credentialing information; utilization and case management functions; claims generation; clinical and management reporting; quality assurance reports; incident reporting; and confidentiality, security, and back-up requirements.

  - Requirements for quality management, including process, structural and outcome measures; accreditation requirements; and internal quality management systems.

  - Requirements for participating in utilization review/case management; level of care criteria; best practice guidelines; and fee schedules. Note that best practice guidelines can be derived from the very outcome data collected for the outcome-based purchasing system and compiled in a data repository.

  All of these managed care techniques can assist the outcome-based purchasing system to contain costs, ensure quality, and improve access.

- **Provider agencies must become learning organizations.** The creation of a system to purchase outcome will be hollow if providers cannot create, acquire, and transfer knowledge from the system to modify their behavior to reflect new knowledge and insights. That is, purchasing outcome should not be an end in itself; it should be a process to improve treatment services over time. Clinicians and staff must find outcome monitoring to be of value or they will simply see it as externally imposed and having little value other than complying with the requirements of external agencies. The collection of

outcome data should be added into the clinical workflow, rather than onto it. Data must be collected as a by-product of service delivery and the information gathered must be fed back into clinical processes in real time. One way to accomplish this is to collect outcome data through the assessment process. The system must feed outcome data into the assessment process while also preparing the data for outcome measurement. Clinical impact requires that outcome data drive two feed back loops. The assessment loop generates information from the data to support treatment decisions on behalf of a particular patient, whereas the outcome loop generates knowledge on behalf of populations. The assessment loop informs the care delivery process (treatment planning, interventions, and patient education). The outcome loop informs and enables the care management process (outcome management, credentialing, continuous quality improvement, and treatment algorithms). By feeding into this double loop system, the data gathered provide information to support decisions on behalf of individual patients and of populations. To build an organization that learns from outcome data requires a cultural shift that must begin at the highest levels of management. Structural changes must reflect management's belief in the importance of organizational learning.

- **The need for a good substance abuse service taxonomy.** In order to measure the outcome of a service, it is necessary to define the service so that it can be identified reliably and validly. Not only is this fundamental to good outcome measurement, it is essential for accounting, and management purposes. There does not appear to be a universally accepted taxonomy of services that meet the demands for reliability and validity in the substance abuse field. Before any progress can be made in making more uniform the reporting of service information, this taxonomy must be established.

- **Providers must have an incentive to be involved in outcome-based purchasing.** Providers in the substance abuse treatment system are going through major changes due in large part to the influence of managed care. Revenues are down and the rate of increase for behavioral health benefits lags behind that of other sectors of health care. Providers are uncertain about their financial futures, and some have unused capacity in their programs. Many providers complain of increased accountability demands while their income drops. If providers are to become involved in, let alone enthusiastic about, the purchase of outcome, there must be something in it for them. They must have incentive to participate in a system that may increase their workload while concomitantly threatening to reduce further their revenue if they do not obtain an acceptable level of outcome, however it is defined. If only the wealthiest of providers can participate in the proposed outcome initiative, the purchase of outcome may benefit only those recipients who least need it. If a community-based program cannot participate for lack of adequate financial resources, the most needy of clients may be disenfranchised from the benefits of the outcome-based purchasing system. Providers must be convinced that there is benefit to this system and that it will directly accrue to them and their clients.

Demonstrating this may be the ultimate obstacle to implementing the new system.

REFERENCES:

Baldwin, W.; Rosenfeld, B., Breslow, J.; Buchman, T.; Deutchman, C. et al., Substance abuse-related admissions to adult intensive care. **CHEST,** 103(1):21-25, 1993.

Beasley, J.; Grimson, R.; Bicker, A.; Closson, W.; Heusel, C.; Faust, F., Follow-up of a cohort of alcoholic patients through 12 months of comprehensive biobehavioral treatment. **Journal of Substance Abuse Treatment,** 8(3): 133-142, 1991.

Bleiberg, J.; Devlin, P.; Croan, J.; Briscoe, R. Relationship between treatment length and outcome in a therapeutic community, **International Journal of the Addictions,** 29(6): 729- 740, 1994.

Chasnoff, I., Drugs, alcohol, pregnancy, and the neonate: Pay now or pay later, **Journal of the American Medical Association,** 266(11): 1567-1568, 1991.

D'Aunno, T.; Vaughn, M. H., National study finds many programs use ineffective treatment practices, **Office for Treatment Improvement Communiqué,** Spring, 1992, pp. 11-12.

Feldkamp, R., RAND study affirms value of drug treatment, but would drain dollars for enforcement, **Narcotics Demand Reduction Digest,** 1-3, July 1994.

French, M.; Zarkin, G.; Hubbard, R.; Rachal, J., Effects of time in drug abuse treatment and employment on post-treatment drug use and criminal activity, **American Journal of Drug and Alcohol Abuse,** 19(1): 19-33, 1993.

Fox, K.; Merril, J.; Chang, H.; Califano, J. Estimating the cost of substance abuse to the Medicaid hospital care program, **American Journal of Public Health,** 85(1): 48-54, 1995.

Fuller, R., Current status of alcoholism treatment outcome research, in: L. S. Harris, Ed., **Problems of Drug Dependence 1989: Proceedings of the 51st Annual Scientific Meeting,** NIDA Research Monograph No. 95, Rockville, MD: NIDA, pp 85-91, 1990.

Hoffman, N., Managed care: theory versus practice, **The Counselor,** 16-18, 1991.

Horgan, C., Substance abuse: Nation's number one health problem. Key indicators for policy. Waltham, MA: Brandies University, Oct. 1993.

McLellan, T.; Grissom, G.; Brill, P.; Durrell, J.; Metzger, D.; O'Brien, C., Private substance abuse treatments: Are some programs more effective than others?, **Journal of Substance Abuse Treatment,** 10(3): 243-254, 1993.

McLellan, T., Abstinence is wrong measure of treatment effectiveness: McLellan, **Substance Abuse Report,** 2, Jul 1994.

Miller, N.; Millman, R.; Keskinen, S., Outcome at six and twelve months post-inpatient treatment for cocaine and alcohol dependence, **Advances in Alcohol and Substance Abuse,** 9 (34): 101-120, 1990.

Miller, T.; Blincoe, L., Incidence and cost of alcohol-involved crashes in the United States, **Accident Analysis & Prevention,** 26(5): 583-591, 1994.

Nace, E.; Davis, C.; Treatment outcome in substance-abusing patients with a personality disorder, **American Journal on Addictions,** 2(1): 26-33, 1993.

Pettinati, R.; Meyers, K.; Evans, B.; Jensen, J.; Kaplan, F., et al., Inpatient vs. outpatient study; Patient-treatment matching design, In: L. Harris, Ed., **Problems of Drug Dependence 1991: Proceedings of the 53rd Annual Scientific Meeting, Committee on Problems of Drug Dependence,** NIDA Monograph No. 119**,** Rockville, MD: NIDA, 323,1991.

Schneider, K.: Kviz, F.; Isola, J.; Filstead, W., Evaluating multiple outcomes and gender differences in alcoholism treatment, **Addictive Behaviors,** 20(1): 1-21, 1995.

Swan, N. Drug abuse treatment works: Twelve-year follow-up of NIDA study of treatment outcome confirms that road to recovery often takes years, **NIDA Notes,** 16-17, 1991.

END NOTES:

[i] Harwood, H., et al., "The Economic Cost of Alcohol and Drug Abuse in the United States, 1992," March 1998. Prepared by The Lewin Group for the National Institute on Drug Abuse (NIDA) and the National Insitute on Alcohol Abuse and Alcoholism (NIAAA)

[ii] Adapted from the 1996 UFDS Highlights page from www.samhsa.gov.

[iii] Appendix 1 contains a glossary of terms used in the UFDS data collection effort.

[iv] Adapted by CESAR from Joan Epstein and Joseph Gfroerer, "Changes Affecting NHSDA Estimates of Treatment Need for 1994-1996." In Substance Abuse and Mental Health Services Administration (SAMHSA), ***Analyses of Substance Abuse and Treatment Need Issues***, Analytic Series A-7, May 1998; and Albert Woodward et al., "The Drug Abuse Treatment Gap: Recent Estimates**,"** ***Health Care Financing Review***, 18(3):5-17, Spring 1997.

[v] SAMHSA's Office of Applied Studies recently issued a Task Order the goal of which is to predict the number of substance abusers in the period 2010-2030, when the "baby boomers" will be age 65+.

[vi] Rouse, B., **The SAMHSA Substance Abuse and Mental Health Statistics Sourcebook,** Tiburon, CA: CentraLink, 1997

[vii] Frank, R, et al., Paying for Mental Health and Substance Abuse Care, **Health Affairs,** 1994, 13:337-342.

[viii] Roman, P., and Blum, T. **National Treatment Center Study Summary Report,** National Institute on Alcohol Abuse and Alcoholism, 1997

[ix] This section is based upon an article "Study finds steep drop in employer behavioral health dollars", ***Mental Health Weekly,*** 8(19), May 11, 1998, pp 1 and 4.

[x] Employee Benefits Resarch Institute, 2121 K St, NW, Suite 600, Washington, DC 20037.

[xi] This section does not include a discussion of the Federal **Temporary Aid to Needy Families (TANF)** program that can provide substance abuse treatment through work readiness training. Its implemenation varies from State to State and therefore may be a valuable resource in some States and absent in others.
[xii] This section is adapted from: Rosenbaum, S., Teitelbaum, J. Coverage Decision-making in Medicaid Managed Care: Key Issues in Developing Manged Care Contracts, ***Managed Behavioral Health Care Issue Brief Series,*** The George Washington Univeristy Medical Center, #1.
[xiii] FY 99 approved funding level for the SAPT Block Grant is $1.585 billion, an increase of $275 million.
[xiv] McKusick, D., Mark, T., King, E., Harwood, R., Buck, J., Dilanardo, J., and Genuardi, J., Spending for mental health and substance abuse treatment, ***Health Affairs,*** 17(5), 147-157.
[xv] American Society of Addiction Medicine. ***Patient Placement Criteria for the Treatment of Psychoactive Substance Uuse Disorders.***Chevy Chase, MD: ASAM. Inc., 1996
[xvi] This material is drawn from www.samhsa.gov.
[xvii] This section draws heavily from Moran, M. Managing care with outcome data: New hopes, new responsibilities, **Behavioral Healthcare Tomorrow,** June, 1998
[xviii] This section draws from an article by Begen-Seltzer, B. MCC is putting its money where its outcomes are, ***Behavioral Health Outcomes,*** 1998
[xix] Having MCC staff collect outcome data has the potential for a conflict of interest.
[xx] This section draws heavily upon material contained at the HCFA website, www.hcfa.gov.
[xxi] For a complete disucssion of managed care, especially in the public sector, see Moss, S (ed), ***Contracting for Managed Substance Abuse and Mental Health Services: A Guide of Public Purchasers,*** Technical Assistance Publication 22, Center for Substance Abuse Treatment, Rockville, MD, 1998
[xxii] The Lewin Group, ***State Profiles on Public Sector Managed Behavioral Healthcare and Other Reforms,*** Washington, DC, 1998

Appendix 1- Uniform Facility Data Set Service Definitions

Uniform Facility Data Set Service Definitions

Specialty Substance Abuse Treatment Facility

A specialty substance abuse treatment facility must claim to provide substance abuse treatment and meet at least 1 of 3 other conditions:

(1) have a facility license or other approval for substance abuse treatment from the State or a nationally recognized agency; or

(2) have staff accredited to provide substance abuse treatment by the State or a nationally recognized agency; or

(3) bill for treatment services using a substance abuse diagnosis.

Active Client

An active client is an individual who:

(1) has been admitted for substance abuse treatment; and,

(2) was an inpatient on October 1, 1996 (and not discharged that day); or

(3) was an outpatient who had received a service within the 30 days between September 2 and October 1, 1996, and had not been discharged as of October 1, 1996.

Types of Treatment

OUTPATIENT (Less Than 24-Hour Care)

- **Outpatient**: Treatment/recovery/aftercare or rehabilitation services provided where the client does not stay overnight in a treatment facility. The client receives drug abuse or alcoholism treatment services with or without medication, including counseling and supportive services. This also is known as non-residential services in the alcoholism field.

- **Intensive Outpatient:** Services provided to a client that last 2 or more hours per day for 3 or more days per week. Day treatment is included in this category.

REHABILITATION (24-Hour Care) - Includes hospital inpatient, non-hospital short-term, and non-hospital long-term care.

- **Hospital Inpatient:** Twenty-four hour/day medical care in a hospital facility in conjunction with treatment services for alcohol and other drug abuse and dependency.
- **Residential:** Residential non-acute care in a setting with treatment services for alcohol and other drug abuse and dependency. May include transitional living arrangements such as halfway houses.

DETOXIFICATION (24-Hour Care) - The process of supervised withdrawal from drugs or alcohol within a short time--usually a week or less. Formal, medically supervised detoxification may include the use of medication to accelerate withdrawal and reduce the pain and discomfort of withdrawal. Detoxification can be an emergency procedure for a drug overdose or an alcoholic coma, but detoxification commonly requires care on less than an emergency level.

- **Hospital Inpatient:** Twenty-four hour/day medical acute care services for detoxification for persons with severe or medical complications associated with withdrawal.
- **Residential:** Twenty-four hour/day services in a non-hospital setting that provide for safe withdrawal and transition to ongoing treatment.

Facility Service Orientation

FREESTANDING SUBSTANCE ABUSE TREATMENT

- Outpatient substance abuse treatment facility
- Halfway house
- Therapeutic community
- Other residential substance abuse treatment facility
- Solo or group practice

MENTAL HEALTH SERVICES

- Community mental health center or other mental health facility that provides a variety of services

- Psychiatric hospital, may include an outpatient substance abuse unit on site

PHYSICAL HEALTH SERVICES

- General hospital, may include an outpatient substance abuse unit on site
- Other specialized hospital, may include an outpatient substance abuse unit on site (e.g., VA, alcoholism, maternity, children's, orthopedic)
- Community Health Center, including Migrant Health Center, Urban Indian Program, Health Care for the Homeless Center

COMMUNITY SETTINGS AND SERVICES

- Community or religious organization/agency that provides a variety of social services
- School
- Other

CORRECTIONAL SETTINGS AND SERVICES

- Jail, prison or juvenile detention center
- Other correctional facility

Appendix 2. American Society of Addiction Medicine Definitions

American Society of Addiction Medicine Definitions1

The definitions of substance abuse treatment services presented here are adapted from the second edition of the American Society of Addiction Medicine's ***Patient Placement Criteria for the Treatment of Substance-Related Disorders***, known as ASAM PPC-2 (ASAM, 1996). More complete definitions can be obtained from the original document.

Definitions of Substance Abuse Treatment Services

LEVEL 0.5: EARLY INTERVENTION

Early intervention is an organized service delivered in a wide variety of settings designed to explore and address problems or risk factors that appear to be related to substance use and to assist the individual in recognizing the harmful consequences of inappropriate substance use.

LEVEL I: OUTPATIENT SERVICES

Organized nonresidential services delivered in a wide variety of settings that meet State licensing or certification criteria, such as office practices, behavioral health clinics, and primary care clinics. Appropriately credentialed clinicians (e.g., physicians, counselors, psychologists, social workers) and addiction credentialed clinicians provide professionally directed evaluation, treatment, and recovery services to persons with substance-related disorders under a defined set of policies and procedures and provided in regularly scheduled sessions of usually fewer than 9 contact hours a week.

Skilled treatment services may include individual and group counseling, family therapy, educational groups, occupational and recreational therapy, psychotherapy, or other therapies. Support systems may include medical, psychological, psychiatric, laboratory, and toxicology services that are available through consultation or referral. Medical and psychiatric consultation are available within 24 hours by telephone and, if face-to-face, within a time appropriate to the severity and urgency of the consultation requested. The program is directly affiliated with more and less intensive levels of care and emergency services are available by telephone 24 hours a day, 7 days a week.

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1 Adapted from Moss, S. , **Contracting for Managed Substance Abuse and Mental Health Services: A Guide for Public Purchasers,** Rockville, MD: U.S. Department of Health and Human Services, 1998

LEVEL II: INTENSIVE OUTPATIENT/PARTIAL HOSPITALIZATION SERVICES

Outpatient treatment in Level II involves a structured day or evening treatment program that may be offered before or after work or school, in the evening, or on a weekend. For appropriately selected patients, such programs provide essential education and treatment components while allowing patients to apply their newly acquired skills within real-world environments. Programs have the capacity to arrange for medical and psychological consultation, psychopharmacological consultation, and 24-hour crisis services. In addition, they have active affiliations with other levels of care and can assist in accessing clinically necessary wrap-around support services such as child care, transportation, and vocational training.

Beyond the essential services, many Level II programs provide psychopharmacological assessment and treatment, have the capacity to effectively treat patients with complex coexisting substance-related and mental health disorders, and have the capacity to manage outpatient detoxification. Others have the capacity to provide supplementary services such as child care, transportation, meals, and unsupervised overnight lodging. The most common variations are Intensive Outpatient (Level II.1) and Partial Hospitalization (Level II.5).

LEVEL II. 1: INTENSIVE OUTPATIENT TREATMENT

Intensive outpatient treatment programs generally provide 9 or more hours of structured programming per week, consisting primarily of counseling and education around alcohol and other drug problems. The patient's needs for psychiatric and medical services are addressed through consultation or referral arrangements.

LEVEL II. 5: PARTIAL HOSPITALIZATION

Partial hospitalization generally provides 20 or more hours of clinically intensive programming per week based on individual treatment plans. Programs have ready access to psychiatric, medical, and laboratory services, and thus have greater capacity than intensive outpatient treatment (Level II.5) to effectively treat individuals who have substantial medical and psychiatric problems.

LEVEL III: RESIDENTIAL/INPATIENT SERVICES

An organized set of services staffed by designated addiction treatment personnel who provide a planned regimen of patient care in a 24-hour, live-in setting. Such services adhere to defined sets of policies and procedures, and are housed in, or affiliated with, permanent facilities where patients can reside safely, and which are staffed 24 hours a day. Mutual/self-help meetings generally are available onsite. The defining characteristic of all Level III programs is that they serve patients who need, and therefore are placed in, safe and stable living environments in order to develop sufficient recovery skills. These living environments may be in the same facility as the one in which the treatment services are provided or separate facilities affiliated with the treatment services provider. In this case, the relationship between living environment and treatment services

must be sufficiently direct to allow specific aspects of the individual treatment plan to be addressed in both facilities.

LEVEL III. 1: CLINICALLY MANAGED LOW-INTENSITY RESIDENTIAL SERVICES

A structured recovery environment offering low intensity professional addiction treatment services at least 5 hours a week (or as specified by State licensure requirements and staffed 24 hours a day. The services provided may include individual, group, and family therapy. Mutual/self-help meetings usually are available onsite. Interpersonal and group living skills generally are promoted in this level of care with community or house meetings involving residents and staff. Treatment is directed toward applying recovery skills, preventing relapse, promoting personal responsibility, and reintegrating the resident into the worlds of work, education, and family life. The prime example of a Level III.1 program is a halfway house, and this level is not intended to describe or include sober houses, boarding houses, or group homes where professional addiction treatment services are not provided.

LEVEL III. 3: CLINICALLY MANAGED MEDIUM-INTENSITY RESIDENTIAL SERVICES

Frequently referred to as extended or long-term care, Level III.3 programs provide a structured recovery environment in combination with medium-intensity professional clinical services to support and promote recovery. Services generally are considered to be of medium intensity and are presented at a slower pace than in more intensive residential services. Interpersonal and group living skills generally are promoted in this level of care through community meetings involving residents and staff. Treatment is directed toward overcoming denial of the presence and effects of addiction in patients? lives, as well as enhancing treatment acceptance and motivation, preventing continued use or relapse, and promoting eventual reintegration of the individual into the community. These programs require greater staff training and nursing supervision than Level III.1 and are thus able to address the needs of residents with slightly more severe medical or emotional/behavioral problems. Reintegration of Level III.3 residents into the community involves case management activities directed toward networking the residents into community-based ancillary or wraparound services such as housing, vocational services, or transportation assistance to attend self-help meetings or vocational activities after discharge.

LEVEL III. 5: CLINICALLY MANAGED HIGH-INTENSITY RESIDENTIAL SERVICES

High-intensity residential programs designed to address significant problems with living skills and providing a highly structured recovery environment in combination with moderate- to high-intensity professional clinical services to support and promote recovery. These programs are characterized by their reliance on the treatment community as a therapeutic agent that introduces and enforces appropriate social values and behaviors, and by a focus on reintegration of the resident into the greater community, with a particular emphasis on employment and education. Treatment is specific to maintaining abstinence and preventing relapse but also vigorously promotes personal responsibility and positive character change. Token economies and other behavioral therapies sometimes are incorporated into these intense therapeutic milieus. Programs

vary on their capacity to meet the medical needs of those served. The prime example of Level III.5 care is the therapeutic community.

LEVEL III. 7: MEDICALLY MONITORED INTENSIVE INPATIENT TREATMENT

Level III.7 programs offer an organized service, staffed by designated addiction treatment personnel or addiction-credentialed physicians, that provides a planned regimen of 24-hour, professionally directed evaluation, care, and treatment for addicted patients in an inpatient setting. Such a service function under a defined set of policies and procedures and has permanent facilities, including inpatient beds. Level III.7 care is delivered by an interdisciplinary staff to patients whose sub-acute biomedical and emotional/behavioral problems are sufficiently severe to require inpatient care. Twenty-four hour observation, monitoring, and treatment are available. However, the full resources of an acute care general hospital or a medically managed inpatient treatment service system are not necessary. The treatment delivered at Level III.7 is specific to the substance-related disorder, but the interdisciplinary team and the availability of support services also accommodate detoxification and/or intensive inpatient treatment of addiction and/or conjoint treatment of coexisting subacute biomedical and/or emotional/behavioral conditions that could jeopardize recovery.

LEVEL IV: MEDICALLY MANAGED INTENSIVE INPATIENT SERVICES

Level IV medically managed intensive inpatient treatment is an organized service that involves a planned regimen of 24-hour, medically directed evaluation, care, and treatment of substance-related disorders in an acute-care inpatient setting. It is designed for individuals whose acute biomedical, emotional, or behavioral problems are severe enough to require primary medical and nursing services. Three types of settings typically provide this level of care: (1) an acute care general hospital; (2) an acute psychiatric hospital or psychiatric unit within an acute care general hospital; and (3) an appropriately allowed conjoint treatment of any coexisting biomedical and emotional/ behavioral conditions that need to be addressed and that could jeopardize recovery. The service can provide life support care and treatment, as needed, either directly or through the transfer of the patient to another service within the facility or to another medical facility equipped to provide such care.

It is staffed by designated addiction physicians or addiction credentialed clinicians, including the following:

(a) An interdisciplinary team of appropriately credentialed clinicians (e.g., physicians, nurses, counselors, psychologists, social workers), who assess and treat adult patients with substance-related disorders or addicted patients with concomitant acute biomedical, emotional/behavioral disorders. Such clinicians must be knowledgeable about the biopsychosocial dimensions of addiction and biomedical and emotional/behavioral disorders.

(b) A team of appropriately trained professionals, daily medical management and physicians available 24 hours a day; primary nursing care and observation available 24 hours a day; and professional counseling services available 16 hours a day.

(c) Facility-approved addiction counselors or licensed, certified, or registered addiction clinicians to administer planned interventions according to the assessed needs of the patient.

Modalities of Substance Abuse Care Provided at Multiple Levels

OPIOID MAINTENANCE THERAPY (OMT)

OMT is an organized, usually ambulatory, addiction treatment service for opiate-addicted patients. OMT is an umbrella term that encompasses a variety of pharmacologic and nonpharmacologic treatment modalities, including the therapeutic use of specialized opioid compounds such as methadone and LAAM (levo-alpha-acetyl-methadol) to psychopharmacologically occupy opiate receptors in the brain, extinguish drug craving and thus establish a maintenance state. It is delivered by designated addiction trained personnel or addiction credentialed clinicians, who provide individualized treatment, case management, and health education (including education about human immunodeficiency virus, tuberculosis, and sexually transmitted diseases).

The nature of the services provided (such as dose, level of care, length of service or frequency of visits) is determined by the patient's clinical needs, but such services should always include regularly scheduled psychosocial treatment sessions. OMT services function under a defined set of policies and procedures, including admission discharge and continued service criteria stipulated by State law and regulation and the Federal regulations at 21 C.F.R. Part 291. OMT is best conceptualized as a separate service that can be provided in any level of care, as determined by assessment of the patient's overall needs. Adjunctive nonpharmacologic interventions are essential and may be provided in the OMT clinic or through coordination with another addiction treatment provider.

Settings that typically provide OMT include permanent freestanding clinics, community mental health centers, community health centers, hospitals, medication units, satellite clinics, or mobile units attached to a permanent clinic site. Support systems include (a) linkage with or access to psychological, medical and psychiatric consultation; (b) linkage with or access to emergency medical and psychiatric affiliations with more intensive levels of care, as needed; (c) linkage with or access to evaluation and ongoing primary medical care; (d) ability to conduct or arrange for appropriate laboratory and toxicology tests; (e) availability of physicians to evaluate, prescribe, and monitor use of methadone or LAAM, and of nurses and pharmacists to dispense and administer methadone or LAAM; and (f) ability to provide or assist in arrangements for transportation services for patients who are unable to drive safely or who otherwise lack transportation.

Staff include the following:

(a) An interdisciplinary team of appropriately trained and credentialed addiction professionals, including a medical director, counselors, and the medical staff delineated in paragraph (b) below. The team will include social workers and licensed psychologists, as needed. They must be knowledgeable in the assessment, interpretation, and treatment of the biopsychosocial dimensions of alcohol/other drug dependence. Staff members receive supervision appropriate to their level of training and experience.

(b) Licensed medical, nursing, or pharmacy staff, who are available to administer medications in accordance with the physician's prescriptions or orders. The intensity of nursing care is appropriate to the services provided by an outpatient treatment program that uses methadone or LAAM.

(c) A physician, who is available during medication dispensing and clinic operating hours, either in person or by telephone.

DETOXIFICATION SERVICES

Detoxification services are a modality of treatment that can be provided at any level of care, depending on the clinical severity of the individual and the resources of the program. Detoxification services should be designed to treat the patient's level of clinical severity and to achieve safe and comfortable withdrawal from mood-altering drugs (including alcohol) and to effectively facilitate the patient's transition into ongoing treatment and recovery.

LEVEL I-D: AMBULATORY DETOXIFICATION WITHOUT EXTENDED ONSITE MONITORING

Level I-D is an organized outpatient service, which may be delivered in an office setting, health care, or addiction treatment facility, or in a patient's home, by trained clinicians who provide medically supervised evaluation, detoxification, and referral services according to a predetermined schedule. Such services are provided in regularly scheduled sessions and should be delivered under a defined set of policies and procedures or medical protocols.

LEVEL II-D: AMBULATORY DETOXIFICATION WITH EXTENDED ONSITE MONITORING

Level II-D is similar to Level I-D with the exceptions that services are not offered in the home, not based on a predetermined schedule, and must include the availability of appropriately credentialed and licensed nurses (R.N., L.P.N.) for monitoring of patients over a period of several hours each day of service.

LEVEL III-D: RESIDENTIAL/INPATIENT DETOXIFICATION

Level III-D services are delivered in a variety of Level III settings with varying intensities of clinical services, particularly as demonstrated by the degree of involvement of medical and nursing professionals.

LEVEL III.2-D: CLINICALLY MANAGED RESIDENTIAL DETOXIFICATION

Sometimes referred to as social detoxification, Level III.2-D is an organized service delivered by appropriately trained staff who provide 24-hour supervision, observation, and support for patients who are intoxicated and/or undergoing withdrawal. Some clinically managed residential detoxification programs are

staffed to supervise self-administered medications for the management of withdrawal. Clinically managed residential detoxification is characterized by its emphasis on peer and social support and provides care for patients whose intoxication/withdrawal signs and symptoms are sufficiently severe to require 24-hour structure and support. However, the full resources of a Level III.7-D, medically monitored inpatient detoxification service, are not necessary. All programs at this level rely on established clinical protocols to identify patients who are in need of medical services beyond the capacity of the facility and to transfer such patients to more appropriate levels of care.

LEVEL III.7-D: MEDICALLY MONITORED INPATIENT DETOXIFICATION

Level III.7-D is an organized service delivered by medical and nursing professionals, which provides for 24-hour, medically supervised evaluation and withdrawal management in a permanent facility with inpatient beds. Twenty-four hour observation, monitoring, and treatment are available. Services are delivered under a defined set of physician-approved policies and physician-monitored procedures or clinical protocols. The full resources of an acute care general hospital or a medically managed intensive inpatient treatment program are not necessary. It sometimes is provided by overlapping with Level IV-D services (as a step-down service) in a specialty unit of an acute care general or psychiatric hospital.

LEVEL IV-D: MEDICALLY MANAGED INPATIENT DETOXIFICATION

Level IV-D is an organized service delivered by medical and nursing professionals that provides for 24-hour, medically directed evaluation and withdrawal management in an acute care inpatient setting. Services are delivered under a defined set of physician-approved policies and physician-managed procedures or medical protocols. This level provides care to patients whose withdrawal signs and symptoms are sufficiently severe to require primary medical and nursing care services. Twenty-four hour observation, monitoring, and treatment are available. The treatment is specific to acute medical detoxification.

Appendix 3. A Summary of Project MATCH

A Summary of Project MATCH

Patient-Treatment Matching

For several decades it has been suggested that matching alcoholic patients to treatments based on their particular characteristics may have the potential to improve alcoholism treatment outcomes. This idea developed from observations that alcoholics differ and that while many benefit from treatment, no single treatment has been shown to be effective for all. In fact, in many areas of medicine, matching patients to treatments based on patient characteristics is widely practiced; for example, patients with a cancer diagnosis may be matched to surgery, radiation, or chemotherapy.

Interest in matching for alcoholism treatment accelerated as evidenced from more than 30 studies accumulated in the literature (1). These studies examined the interaction between a number of treatment approaches (e.g., coping-skills training, interactional therapy, or relationship enhancement) and patients with particular characteristics to determine whether certain patients would benefit more from one type of treatment than another. Examples of the patient characteristics that were matched to particular treatments included psychiatric severity, sociopathy, cognitive impairment (2,3), and high or low social support (4).
These studies indicated that some treatment approaches were more effective than others for patients with certain characteristics. For example, Kadden and colleagues (2) found that coping-skills training was more effective than interactional therapy at the end of 6 months of treatment in preventing relapse among patients with more psychiatric problems or higher in a rating of sociopathy. These patients were followed for an additional 18 months after treatment, and these matches were still present at the end of this follow-up period (3). Contrary to their expectations, the researchers found that patients with cognitive impairment had better outcomes when treated with interactional therapy than with coping-skills training. In addition, Kadden and colleagues (5) found that patients who reported less anxiety and fewer urges to drink during their first skills training session experienced better outcomes with interactional therapy than with coping-skills training. Conversely, those who reported more anxiety or more urges to drink experienced better outcomes with coping-skills training than with interactional therapy (5).

Longabaugh and associates (4) studied patients randomly assigned to individually focused cognitive-behavioral treatment (a treatment in which patients are taught to cope with drinking-related stresses) or a combination of couples therapy and brief cognitive-behavioral treatment. They found that those patients with high social support did well with either treatment, and those with low support did better with cognitive-behavioral therapy. In this same study, they also found that patients who met DSM-III criteria for antisocial personality (ASP) drank less per drinking day if treated with cognitive-behavioral therapy than with relationship enhancement therapy. Both treatments were equivalent for patients without ASP (6).

To build on studies of patient-treatment matching that had already been conducted and to make recommendations about appropriate patient-treatment matches, the National Institute on Alcohol Abuse and Alcoholism (NIAAA) initiated Project MATCH (Matching Alcoholism Treatment to Client Heterogeneity) in late 1989. By the time Project MATCH began, the Institute of Medicine (IOM) had urged systematic and definitive studies of the patient-treatment matching hypothesis to improve treatment outcomes and better utilize scarce resources (7,8). The large sample size in Project MATCH would enhance statistical power, allow many hypotheses defined in advance to be tested, enable findings to be replicated, and facilitate an exhaustive assessment of treatment outcome. The goal of Project MATCH was to learn whether different types of alcoholics respond selectively to particular treatments. Specifically, the study tested 16 patient-treatment combinations that appeared promising based on experimental evidence and/or theory.

Structure of Project MATCH

A total of 1,726 patients were recruited at treatment facilities throughout the United States, making this the largest clinical trial of psychotherapies undertaken to date. Twenty-five percent of the patients were women, and 15 percent were from minority populations. There were two parallel arms representing the two major venues of treatment for alcoholic patients: an "outpatient" arm, with patients recruited directly from the community, and an "aftercare" arm, consisting of patients who had just completed an inpatient or intensive day hospital treatment (9). Procedures were the same in both study arms. Participants were first assessed, using interviews and tests, to obtain information on demographic characteristics, personality, drinking behavior,

factors predisposing to alcohol problems, the personal and medical effects of their drinking, and alcohol treatment history. Both groups involved identical assessment methods, treatment procedures within and across programs, follow-up evaluations, and analytic techniques. The two-group design allowed exploration of possible differences in matching among patients recruited from different settings (10).

Ten patient characteristics were studied, mostly based on promising leads in the literature. They were severity of alcohol involvement, cognitive impairment, conceptual level, gender, meaning seeking, motivation, psychiatric severity, social support for drinking versus abstinence, sociopathy, and alcoholic typology (10,11).

Treatments

All patients were randomly assigned to one of three treatments: Twelve-Step Facilitation (TSF), Cognitive-Behavioral Therapy (CBT), or Motivational Enhancement Therapy (MET). These treatments were selected because they showed potential for matching, promising outcomes, and utility in clinical situations. TSF consisted of 12 weekly sessions in which the therapist encouraged patients to attend and become involved in the traditional fellowship activities of Alcoholics Anonymous (AA) and to introduce the first 5 of the 12 steps. Involvement in AA included finding a sponsor, attending meetings regularly, and reading AA material. TSF was an approach designed specifically for Project MATCH. Although grounded in the 12-Step principles, it was a professionally delivered, individual therapy different from the usual peer-organized AA meetings and was not intended to duplicate or substitute for traditional AA. In CBT, therapists taught and coached skills to enable patients to cope with situations and emotional states known to precipitate relapse. Patients practiced drink-refusal skills, learned to manage negative moods, and learned to cope with urges to drink in 12 weekly sessions. MET therapists used techniques of motivational psychology and, rather than training the patients in particular skills, encouraged individuals to consider their situation and the effect of alcohol on their life, develop a plan to stop drinking, and implement the plan. MET consisted of four sessions over the course of 12 weeks (9,10).

Procedures for administering treatments were carefully described in detailed manuals developed for each treatment (12-14). All three treatments were delivered by carefully trained and supervised professionals in individual therapy sessions. All therapy sessions were videotaped (with the patients' permission), and 25 percent were randomly selected for monitoring by supervisors to ensure that the therapy was conducted as intended (10). Retention in treatment was excellent: Patients kept about two-thirds of their scheduled appointments. More than 90 percent completed all five of the data collection sessions during the year following treatment.

Results

The findings challenged the notion that patient-treatment matching is a prerequisite for effective alcoholism treatment. The trial confirmed only one of the hypothesized patient-treatment matches: There was a significant match on psychiatric severity with TSF among the "outpatients." Patients with few or no psychological problems had significantly more abstinent days with TSF than with CBT. The study did not confirm the other hypotheses, many of which were suggested by previous research. The investigators concluded that patient-treatment matching, as exemplified by the 16 combinations of patient characteristics and treatments studied in Project MATCH, adds little to enhance the outcome of treatment (10). In addition to the knowledge gained about matching, the trial also demonstrated that compared to their status before treatment, drinking and negative consequences declined regardless of which of the three treatments participants received. Patients had a greater percentage of days abstinent (i.e., patients averaged 25 drinking days per month before treatment, which decreased to fewer than 6 drinking days per month after treatment) as well as a substantial decrease in the number of drinks consumed on days when drinking occurred. At entry, almost all patients reported both heavy drinking and resulting recurrent problems. However, 1 year after treatment, only about 50 percent of participants reported such problems. Patients who participated in the study also decreased use of other drugs, were less depressed, and improved their liver function. These improvements were maintained throughout the 12 months following treatment (10).
Overall, more "aftercare" patients (35 percent) were able to sustain complete abstinence throughout the year after treatment than the "outpatients" (19 percent), despite the fact that the aftercare patients entered the study with more alcohol-dependence symptoms. This raises the

possibility that an initial period of supervised abstinence from alcohol is important. However, it is possible that other factors, such as more exposure to treatment, may have contributed to this difference, since patients were not randomly assigned to the two arms. Among the aftercare patients, there were no differences in sustained abstinence according to type of treatment received. However, in the outpatient group, 10 percent more patients who received TSF achieved continuous abstinence compared with those who received the other two treatments (24 percent for TSF as opposed to 15 percent for CBT and 14 percent for MET). Overall, gender or ethnic differences did not affect treatment outcome (10).

References

(1) Mattson, M.E.; Allen, J.P.; Longabaugh, R.; Nickless, C.J.; Connors, G.J.; and Kadden, R.M. A chronological review of empirical studies matching alcoholic clients to treatment. *Journal of Studies on Alcohol* Suppl. 12:16-29, 1994. **(2) Kadden, R.M.;** Cooney, N.L.; Getter, H.; and Litt, M.D. Matching alcoholics to coping skills or interactional therapies: Posttreatment results. *Journal of Consulting and Clinical Psychology* 57(6):698-704, 1989. **(3) Cooney, N.L.;** Kadden, R.M.; Litt, M.D.; and Getter, H. Matching alcoholics to coping skills or interactional therapies: Two-year follow-up results. *Journal of Consulting and Clinical Psychology* 59(4):598-601, 1991. **(4) Longabaugh, R.;** Beattie, M.; Noel, N.; Stout, R.; and Malloy, P. The effect of social investment on treatment outcome. *Journal of Studies on Alcohol* 54(4):465-478, 1993. **(5) Kadden, R.M.;** Litt, M.D.; Cooney, N.L.; and Busher, D.A. Relationship between role-play measures of coping skills and alcoholism treatment outcome. *Addictive Behaviors* 17(5):425-437, 1992. **(6) Longabaugh, R.;** Rubin, A.; Malloy, P.; Beattie, M.; Clifford, P.R.; and Noel, N. Drinking outcomes of alcohol abusers diagnosed as antisocial personality disorder. *Alcoholism: Clinical and Experimental Research* 18(4):778-785, 1994. **(7) Institute of Medicine.** *Prevention and Treatment of Alcohol Problems: Research Opportunities.* Washington, D.C.: National Academy Press, 1989. **(8) Institute of Medicine.** *Broadening the Base of Treatment for Alcohol Problems.* Washington, D.C.: National Academy Press, 1990. **(9) Project MATCH Research Group.** Project MATCH: Rationale and methods for a multisite clinical trial matching patients to alcoholism treatment. *Alcoholism: Clinical and Experimental Research* 17(6):1130-1145, 1993. **(10) Project MATCH Research Group.** Matching alcoholism treatments to client heterogeneity: Project MATCH posttreatment drinking outcomes. *Journal of Studies on Alcohol* 58:7-29, 1997. **(11) Babor, T.F.** The classification of alcoholics: Typology theories from the 19th century to the present. *Alcohol Health & Research World* 20(1):6-14, 1996. **(12) Nowinski, J.;** Baker, S.; and Carroll, K. *Twelve Step Facilitation Therapy Manual: A Clinical Research Guide for Therapists Treating Individuals With Alcohol Abuse and Dependence.* Rockville, MD: National Institute on Alcohol Abuse and Alcoholism, 1994. **(13) Miller, W.R.;** Zweben, A.; DiClemente, C.C.; and Rychtarik, R.G. *Motivational Enhancement Therapy Manual: A Clinical Research Guide for Therapists Treating Individuals With Alcohol Abuse and Dependence.* Rockville, MD: National Institute on Alcohol Abuse and Alcoholism, 1994. **(14) Kadden, R.;** Carroll, K.; Donovan, D.; Cooney, N.; Monti, P.; Abrams, D.; Litt, M.; and Hester, R. *Cognitive-Behavioral Coping Skills Therapy Manual: A Clinical Research Guide for Treating Individuals With Alcohol Abuse and Dependence. Rockville,* MD: National Institute on Alcohol Abuse and Alcoholism, 1994.

Appendix 4. Comparison of Performance Indicators

COMPARISON OF PERFORMANCE INDICATORS
NCQA, ACMHA, NASMHPD/NASADAD/APWA[1]

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ACCESS

Performance Indicator	NCQA/bmp	ACMHA	3 ASSNS
Penetration/utilization rates (by age, sex, race, setting	X	X	X
Consumer perception of access		X	X
Full range of services available: Weekend detox New medications In-home services for children	X	X	
Cultural accessibility	X	X	Dvpmnt set
Percent of members admitted to MH services that have inpatient services as their first encounter	X		
Percent of elderly plan members screened for depression and substance abuse	X		
Percent of alcohol/drug-related diagnoses that trigger alcohol or drug screening and percentage of positive screens that resulted in referral	X		
Percent of enrolled population that lives within specified driving time of providers	X		
Service denials, terminations or refusals		X	Dvpmnt set

QUALITY/APPROPRIATENESS

Performance Indicator	NCQA/bmp	ACMHA	3 ASSNS
Consumer participation in treatment planning (adults)		X	X
Consumers linked to primary health services			X
Contact within 7 days following hospital discharge	X	X	X
Adults with SMI receiving services that promote recovery			X
Children receiving "best practice" e.g., in-home services			X
Family involvement in treatment for children/adolescents	X	X	X
Readmissions within 30 days	X		X
Consumer perceptions of quality/appropriateness (or family proxy for children)	XX	XX	X
Seclusion and restraint			X
Medication used appropriately	X	X	X
Incidence of diagnosis of depression, substance abuse	X		

[1] NCQA- National Committee on Quality Assurance; ACMHA- American College of Mental Health Administration; NASMHPD- National Association of State Mental Health Program Directors; NASADAD- National Association of State Alcohol and Drug Abuse Directors; APWA- American public Welfare Association (now the Association of Public Human Service Administrators)

Use of standardized assessments and diagnostic procedures in guiding behavioral treatments	X		
Engagement in treatment	X	X	
Rates of involuntary inpatient treatment in covered population	X	X	
Single point of responsibility for coordinating care across systems for children		X	

OUTCOMES

Performance Indicator	NCQA/bmp	ACMHA	3 ASSNS
Employment (adults)/school improvement (children)	X	X	X
Level of Functioning	X	X	X
Symptom (substance use) reduction	X		X
Adverse outcomes Patient injuries Abnormal involuntary movements Elopement Out of home placements			X
Consumer perception of outcomes	XX	X	X
Health status: mortality	X		X
Recovery/hope/personhood	X		X
Reduced substance abuse impairment	X		X
Living situation		X	X
Criminal justice		X	X
Quality of life	X	XXX	

STRUCTURE/PLAN MANAGEMENT

Performance Indicator	NCQ/BMAP	ACMHA	3 ASSNS
Consumer/family involvement in policy development, quality assurance and planning			X
Proportion of expenditures on administration			X
Average per member per month expenditures for MH/SA			X
Capacity of information system	X	X	
Organizational structure is consistent with MH/SA service delivery		X	
Consumer rights are defined and procedures for resolving complaints in place & used		X	
Staffing levels are appropriate		X	
Appropriate linkages to other service systems		X	
Continuity of care within the organization		X	
Single, fixed point of responsibility		X	
Quality assurance system in place		X	
Consumers and families educated about their rights, services available, and probable outcomes		X	